STATE OF NEW HAMPSHIRE
Department of Environmental Services
Air Resources Division

# Title V Operating Permit

draft

Permit No: **TV-OP-XXX**
Date Issued: **December XX, 2003**

This certifies that:
**Northeast Utilities**
**Public Service Company of New Hampshire**
**1000 Elm Street**
**Manchester, NH**

has been granted a Title V Operating Permit for the following facility and location:
**Public Service of New Hampshire**
**Schiller Station**
**330 Gosling Road**
**Portsmouth, NH**
**AFS Point Source Number – 3301500012**

This Title V Operating Permit is hereby issued under the terms and conditions specified in the Title V Operating Permit Application filed with the New Hampshire Department of Environmental Services on **July 1, 1996** under the signature of the following responsible official certifying to the best of their knowledge that the statements and information therein are true, accurate and complete.

Responsible Official:
**John MacDonald**
**(603) 634-2236**
Technical Contact:
**Laurel Brown**
**(603) 634-2331**

Designated Representative:
John MacDonald (603) 634-2236
Alternate Designated Representative:
William Smagula (603) 634-2236
Authorized Account Representative:
John MacDonald (603) 634-2236
Alternate Authorized Account Representative:
William Smagula (603) 634-2236

This Permit is issued by the New Hampshire Department of Environmental Services, Air Resources Division pursuant to its authority under New Hampshire RSA 125-C and in accordance with the provisions of Title 40 of the Code of the Federal Regulations, 40 Part 70.

This Title V Operating Permit shall expire on **December 31, 2008.**

**SEE ATTACHED SHEETS FOR ADDITIONAL PERMIT CONDITIONS**

For the New Hampshire Department of Environmental Services, Air Resources Division

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Director, Air Resources Division

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## ABBREVIATIONS

| | |
|---|---|
| AAL | Ambient Air Limit |
| AP-42 | Compilation of Air Pollutant Emission Factors |
| ARD | Air Resources Division |
| ASTM | American Society for Testing and Materials |
| ATS | Allowance Tracking System |
| BACT | Best Available Control Technology |
| BHP (or bhp) | Brake Horse Power |
| BTU | British Thermal Units |
| CAA | Clean Air Act, 42 U.S.C. § 7401, et seq. |
| CAM | Compliance Assurance Monitoring |
| CAS | Chemical Abstracts Service |
| CEMS | Continuous Emission Monitoring System |
| CFR | Code of Federal Regulations |
| CNG | Compressed Natural Gas |
| CO | Carbon Monoxide |
| $CO_2$ | Carbon Dioxide |
| COMS | Continuous Opacity Monitoring System |
| DER | Discrete Emission Reduction |
| Env-A | New Hampshire Code of Administrative Rules – Air Resources Division |
| Env-Wm | New Hampshire Code of Administrative Rules – Waste Management Division |
| ECS | Emission Control System |
| ERC | Emission Reduction Credit |
| ETS | Emissions Tracking System |
| FR | Federal Register |
| HAP | Hazardous Air Pollutant |
| HHV | High Heat Value |
| HCl | Hydrochloric acid |
| Hr | Hour |
| kGal | 1,000 gallons |
| kscfm | 1,000 standard cubic feet per minute |
| KVDC | Kilovolt Direct Current |
| KW | Kilowatt |
| LAER | Lowest Achievable Emission Rate |
| Lb/hr | Pounds per hour |
| LNB | Low $NO_x$ Burner |
| LNG | Liquid Natural Gas |
| LPG | Liquid Petroleum Gas (Propane) |
| MACT | Maximum Achievable Control Technology |
| mg/L | Milligrams per liter |
| MMBTU (or MMBtu) | Million British Thermal Units |
| MMCF | Million Cubic Feet |
| MW | Megawatt |
| NAAQS | National Ambient Air Quality Standard |
| NATS | NOx Allowance Tracking System |
| NESHAPs | National Emissions Standards for Hazardous Air Pollutants |
| NG | Natural Gas |
| NHDES (or DES) | New Hampshire Department of Environmental Services |

## ABBREVIATIONS (cont.)

| | |
|---|---|
| NMOC | Nonmethane Organic Compound |
| $NO_x$ | Oxides of Nitrogen |
| NSPS | New Source Performance Standard |
| NSR | New Source Review |
| PCB | Polychlorinated biphenyls |
| PE | Potential Emission |
| PM | Particulate Matter |
| $PM_{10}$ | Particulate Matter less than 10 microns diameter |
| ppm | part per million |
| ppmv | part per million by volume |
| PSD | Prevention of Significant Deterioration |
| PSI | Pounds per Square Inch |
| PTE | Potential to Emit |
| PUC | Public Utilities Commission |
| RACT | Reasonably Available Control Technology |
| RTAP | Regulated Toxic Air Pollutant |
| SIP | State Implementation Plan |
| $SO_2$ | Sulfur Dioxide |
| T-12M | Tons during any consecutive 12-month period |
| TAP | Toxic Air Pollutant |
| TSP | Total Suspended Particulate Matter |
| TPY | Tons per Year |
| USEPA | United States Environmental Protection Agency |
| VOC | Volatile Organic Compound |

# Facility Specific Title V Operating Permit Conditions

## I. Facility Description of Operations



Schiller Station (Schiller) is a fossil fuel-fired electric generating facility, owned and operated by Public Service of New Hampshire (PSNH), a subsidiary of Northeast Utilities. The facility is comprised of three utility boilers, one combustion turbine operating as a load shaving unit, an emergency generator, and a primary coal crusher. The facility operations also include various activities that are classified as insignificant or exempt activities.

The three utility boilers are capable of burning either bituminous coal or No. 6 fuel oil; the combustion turbine primarily burns JP-4 or natural gas; and the emergency generator burns natural gas or propane. PSNH ignites the boilers with natural gas.

Each boiler stack is equipped with a continuous emissions monitoring system (CEMS) and a continuous opacity monitoring system (COMS). Schiller emits NOx, $SO_2$, CO, VOCs, particulate matter, $CO_2$, regulated toxic air pollutants and hazardous air pollutants. Schiller has installed control equipment and implemented operational changes to reduce emissions, including electrostatic precipitators to control particulate matter, and burner modifications (also referred to as low NOx burners), and selective non-catalytic reduction systems and overfire air (both operated as alternative operating scenarios), to control NOx emissions.

Schiller operates a fly ash reinjection system, as an alternative operating scenario, to capture unburned carbon and to reduce the amount of fly ash shipped off-site as solid waste.

## II. Permitted Activities

In accordance with all of the applicable requirements identified in this permit, the Permittee is authorized to operate the devices and or processes identified in Sections III, IV, V and VI within the terms and conditions specified in this Permit.

## III. Significant Activities Identification and Stack Criteria

### A. Significant Activity Identification

The activities identified in the following table (Table 1) are subject to and regulated by this Title V Operating Permit:

**Table 1 – Significant Activity Identification**

| Emission Unit Number | Description of Emission Unit | Maximum Gross Heat Input or Maximum Power Output | Maximum Operating Conditions |
|---|---|---|---|
| SR4 | Steam Generating Unit No. 4 (Installed 1952) | Bituminous coal (with maximum sulfur content based on a 3-month rolling average of 1.3 lb/mmBtu): 574 million | A) Maximum fuel consumption rate of bituminous coal shall be limited to 22.51 tons per hour, not to |

| Table 1 – Significant Activity Identification | | | |
|---|---|---|---|
| **Emission Unit Number** | **Description of Emission Unit** | **Maximum Gross Heat Input or Maximum Power Output** | **Maximum Operating Conditions** |
| | Dry Bottom Boiler with One End Firing | Btu/hour<br>Fuel oil No. 6 (with maximum sulfur content of 2.0% by weight): 575 million Btu/hour | exceed 197,187.6 tons during any consecutive 12-month period.[1]<br>B) Maximum fuel consumption rate of No. 6 fuel oil shall be limited to 3,833.33 gallons per hour, not to exceed 33.58 million gallons during any consecutive 12-month period.[2] |
| SR5 | Steam Generating Unit No. 5<br>(Installed 1955)<br>Dry Bottom Boiler with One End Firing | Bituminous coal (with maximum sulfur content based on a 3-month rolling average of 1.3 lb/mmBtu): 574 million Btu/hour<br>Fuel oil No. 6 (with maximum sulfur content of 2.0% by weight): 575 million Btu/hour | A) Maximum fuel consumption rate of bituminous coal shall be limited to 22.51 tons per hour, not to exceed 197,187.6 tons during any consecutive 12-month period.[1]<br>B) Maximum fuel consumption rate of No. 6 fuel oil shall be limited to 3,833.33 gallons per hour, not to exceed 33.58 million gallons during any consecutive 12-month period. [2] |
| SR6 | Steam Generating Unit No. 6<br>(Installed 1957)<br>Dry Bottom Boiler with One End Firing | Bituminous coal (with maximum sulfur content based on a 3-month rolling average of 1.3 lb/mmBtu): 574 million Btu/hour<br>Fuel oil No. 6 (with maximum sulfur content of 2.0% by weight): 575 million Btu/hour | A) Maximum fuel consumption rate of bituminous coal shall be limited to 22.51 tons per hour, not to exceed 197,187.6 tons during any consecutive 12-month period.[1]<br>B) Maximum fuel consumption rate of No. 6 fuel oil shall be limited to 3,833.33 gallons per hour, not to exceed 33.58 million gallons during any consecutive 12-month period.[2] |
| SRCT | Combustion Turbine<br>(Installed 1970) | JP-4 or natural gas: 290 million Btu/hr | A) Maximum fuel consumption rate shall not exceed 2,071 gallons per hour, and 18.5 million gallons during any consecutive 12-month period.[3]<br>B) Maximum fuel consumption rate of natural gas shall not exceed 290,000 cubic feet per hour, and 2,540 million cubic feet during any consecutive 12-month period.[4] |

[1] The heating value of bituminous coal is assumed to be 12,750 BTU/lb. The fuel consumption limits may vary based on the actual heat content of the fuel burned.
[2] The heating value of No. 6 fuel oil is assumed to be 150,000 BTU/gallon. The fuel consumption limits may vary based on the actual heat content of the fuel burned.
[3] The heating value of JP-4 is assumed to be 140,000 BTU/gallon. The fuel consumption limits may vary based on the actual heat content of the fuel burned.
[4] The heating value of natural gas is assumed to be 1020 BTU/$ft^3$. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

| Table 1 – Significant Activity Identification | | | |
|---|---|---|---|
| **Emission Unit Number** | **Description of Emission Unit** | **Maximum Gross Heat Input or Maximum Power Output** | **Maximum Operating Conditions** |
| SRCC | Coal Crusher (Installed 1952) | NA  | Maximum operating rate of the Primary Coal Crusher shall be limited to 350 tons per hour of coal and 591,563 tons per consecutive 12-month period. |
| SREG | Emergency Generator I (Installed 1968) | Natural gas or propane: 1.5 million Btu/hr (235 HP) | A) Operating hours shall be limited to 500 hours during any consecutive 12-month period.<br>B) Maximum fuel consumption rate of natural gas shall not exceed 1,500 $ft^3$/hour and 750,000 $ft^3$ during any consecutive 12-month period.[5]<br>C) Maximum fuel consumption rate of propane shall not exceed 16.36 gallons/hour and 8,195 gallons during any consecutive 12-month period.[6] |

**B. Stack Criteria**

The following stacks for the above listed significant devices at this facility shall discharge vertically without obstruction (including rain caps) and meet the following criteria:

| Table 2 – Stack Criteria | | | | |
|---|---|---|---|---|
| **Stack Number** | **Emission Unit Number** | **Emission Unit Description** | **Minimum Stack Height (Feet) Above Ground Level** | **Maximum Inside Stack Diameter (Feet)** |
| STSR4 | SR4 | Steam Generating Unit No. 4 | 226 | 8 |
| STSR5 | SR5 | Steam Generating Unit No. 5 | 226 | 8 |
| STSR6 | SR6 | Steam Generating Unit No. 6 | 226 | 8 |
| STSRCT | SRCT | Combustion Turbine | 20 | 10.5 x 14 |

Changes to the state-only requirements pertaining to stack parameters (set forth in this permit), shall be permitted only when an air quality impact analysis which meets the criteria of Env-A 606 is performed either by the facility or the New Hampshire Department of Environmental Services, Air Resources Division (if requested by facility in writing) in accordance with the

[5] The heating value of natural gas is assumed to be 1000 BTU/$ft^3$. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

[6] The heating value of propane is assumed to be 91,500 BTU/gallon. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

"DES-ARD Procedure for Air Quality Impact Modeling." All air modeling data shall be kept on file at the facility for review by the DES upon request.

## IV. Insignificant Activities Identification

All activities at this facility that meet the criteria identified in Env-A 609.04(d), shall be considered insignificant activities. Emissions from the insignificant activities shall be included in the total facility emissions for the emission-based fee calculation described in Section XXIII. of this Permit.



## V. Exempt Activities Identification

All activities identified in Env-A 609.03(c) shall be considered exempt activities and shall not be included in the total facility emissions for the emission based fee calculation described in Section XXIII of this permit.

## VI. Pollution Control Equipment/Method Identification

The devices and/or processes identified in Table 3 are considered pollution control equipment or techniques for each identified emissions unit:

**Table 3 – Pollution Control Equipment/Method Identification**

| Pollution Control Equipment Number | Description of Equipment/Method | Emission Unit Number |
|---|---|---|
| SR4-PC1 | Electrostatic Precipitator (ESP) | SR4 |
| SR4-PC2 | Selective Non-Catalytic Reduction (SNCR) System | SR4 |
| SR4-PC3 | Low NOx Burners | SR4 |
| SR4-PC4 | Overfire Air | SR4 |
| SR4-PC5 | Low Sulfur Coal | SR4 |
| SR5-PC6 | ESP | SR5 |
| SR5-PC7 | SNCR System | SR5 |
| SR5-PC8 | Low NOx Burners | SR5 |
| SR5-PC9 | Overfire Air | SR5 |
| SR5-PC10 | Low Sulfur Coal | SR5 |
| SR6-PC11 | ESP | SR6 |
| SR6-PC12 | SNCR System | SR6 |
| SR6-PC13 | Low NOx Burners | SR6 |
| SR6-PC14 | Overfire Air | SR6 |
| SR6-PC15 | Low Sulfur Coal | SR6 |
| SRCC-PC16 | Best Management Practices | SRCC |

## VII. Alternative Operating Scenarios

While operating under an alternative operating scenario, the Permittee shall comply with all applicable requirements specified in this permit, including monitoring, recordkeeping and reporting requirements. The Permittee shall keep records pertaining to the alternative operating scenario during such operation.

**A. Trial Test Burns with Other Fuels**

Prior to the use of any fuel other than fuels previously reviewed and approved by the DES, PSNH shall submit a proposal to the DES, which shall include, but not be limited to the following:



1. Type of fuel;

2. Analysis data of the fuel proposed, which shall include proximate and ultimate analysis, volatile and semi-volatile analyses (i.e., EPA Method 8240, 8260, 8250, or 8270) and metals analysis (i.e., Method 3050 and mercury).

3. Specification of baseline operating conditions at Schiller Station including coal feed rate, percent moisture of coal feed, ESP operating conditions, and emission values of opacity, $SO_2$, NOx, particulate, and CO (if applicable);

4. A comprehensive test plan, which shall present the proposed operating conditions for the trial burn, to include but not be limited to the following:

   a) Length of fuel trial;

   b) New fuel rate;

   c) Means of measuring new fuel feed;

   d) Description of new fuel feed process;

   e) New fuel preparations;

   f) Percent moisture of new fuel feed;

   g) Time table for operation stability;

   h) Coal feed rate;

   i) Coal percent moisture;

   j) ESP operating conditions;

   k) Expected emission values of opacity, $SO_2$, NOx, TSP, and CO;

   l) The continuous tracking or operational data prior to the fuel trial, during the fuel trial, and for a short time after the fuel trial. $SO_2$, NOx, and opacity can be monitored using the existing CEM.

   m) A compliance stack test protocol for TSP emissions using Method 1 through 4, Method 5, or a DES approved alternate, when requested by DES.

   n) A compliance stack test protocol for ammonia slip using Method 27.

o) Operational parameters to be monitored and recorded, which shall include, but not be limited to steam flows, boiler temperatures, oxygen, and ammonia flow;

p) The effects of the new fuel on flyash characteristics and resulting effect on the ESP operation;

q) The effects of the new fuel on bottom ash characteristics;



r) Specification and description of expected operational and combustion conditions when the trial burn has reached stabilization with the new fuel feed; and

s) A timetable or schedule with approximate dates of the trial test burn.

5. Based on information regarding the proposed trial fuel burn provided by PSNH, DES may request additional specific information on the proposed trial burn operations. In addition, metal emission stack testing may be required dependent upon DES review of the new fuel metal analysis.

6. If the new fuel is to be consumed on a regular basis, New Source Review and/or Prevention of Significant Deterioration may apply as well as a public notice and comment period.

7. DES shall respond within 30 days of receipt of a proposal with approval, conditional approval, denial, or request for additional information.

8. DES Waste Management Division may have additional requirements and concerns and shall be contacted by PSNH prior to the initiation of any trial fuel burn.

9. A summary report shall be submitted to DES within 60 days after the end of the trial fuel burn, which should include a summary of operational results and trends, emission values to include CEM and stack test data, and proposed future use of fuel.

**B. Fuel Blending Requirements (State Enforceable Only)**

DES grants PSNH a waiver from Env-A 1604 to purchase oil containing sulfur greater than 2.0% by weight. This oil shall be used for blending purposes only. PSNH shall comply with the requirements listed below when purchasing oil greater than 2.0% sulfur.

1. Delivery of greater than 2.0% sulfur oil shall be to segregated storage tanks.

2. Greater than 2.0% sulfur oil shall be mixed with less than 2.0% sulfur oil in a tank in which the “sparging system” shall be in full operation to assure complete mixing of the blended oil.

3. After mixing for an appropriate amount of time to assure complete blending, samples from the top, middle, and bottom of the tank shall be collected and analyzed in accordance with method ASTM D 4294. The sample results shall be averaged to create a composite figure in accordance with PSNH procedures.

4. After sampling is complete and the test results indicate that the tank of blended oil is less than 2.0% sulfur by weight, the oil may be transferred to the Schiller day tank.

5. PSNH shall not burn oil containing greater than 2.0% sulfur by weight.

6. Prior to accepting any shipment of oil containing greater than 2.0% sulfur by weight, PSNH shall contact DES by fax or telephone.

7. PSNH shall provide DES with all analytical data from samples collected from all blending operations that utilize greater than 2.0% sulfur by weight oil. This data shall provide DES with specific sulfur analysis information on the oil feeding the boilers and confirm that each blend is less than or equal to 2.0% sulfur by weight.

8. PSNH shall maintain records of the fuel cost savings that result from fuel blending. PSNH shall report these savings data semi-annually to DES. PSNH may include this cost information in the semi-annual Fuel and Purchased Power Adjustment Charge (FPPAC) proceedings at the NH Public Utilities Commission.

**C. Fly Ash Reinjection**

1. To capture unburned carbon in the fly ash and to reduce the amount of ash shipped off-site as solid waste, PSNH shall maintain and operate the fly ash injection system as an alternative operating scenario.

2. The fly ash injection system is comprised of a system of blowers and piping that allow fly ash from the precipitator hoppers and silo storage area to be reinjected into the burners of the boilers.

3. To minimize PM emissions during fly ash reinjection, PSNH shall ensure that the ESP is energized before start-up of the fly ash reinjection system.

**D. NOx Emission Reduction Management Practices**

1. To achieve the NOx emission requirements specified in this permit, PSNH shall maintain and operate any or all of following equipment as alternative operating scenarios: the overfire air system, the SNCR, and the low NOx burners.

2. The CEMS shall be used to determine the NOx emissions at the stack outlet.

3. The overfire air system is comprised of ports, ducts, and dampers that allow approximately 15 percent of the combustion airflow to be diverted from the top of the windbox through ports located above the top elevation of burners.

4. The SNCR system uses a urea solution to reduce NOx emissions.

5. Ammonia slip from the SNCR system shall not exceed 10 ppmvd @ 10% $O_2$. Ammonia slip shall be measured during optimization tests and at other times as required by DES.

6. The Metering Module shall meter the concentrated urea solution to the boiler. The feed rate of urea shall be controlled through an auto/manual NOx control station that utilizes a feed-forward boiler load signal and a feedback boiler outlet corrected NOx signal. The NOx control station output signal shall be sent to the Metering Control Valve, which shall

automatically control the amount of reagent injected in each zone. PSNH may also manually control the amount of reagent injected in each zone to meet the NOx emissions and ammonia slip limitations.

7. PSNH may vary the injection rate of urea in a manner that is adequate to meet the NOx emission limitations.



8. When the SNCR is in operation, PSNH shall monitor daily the amount of urea used and the amount of water used.

9. The low NOx burners are designed to create lower NOx emissions during the combustion of fuel.

10. PSNH shall maintain compliance with the NOx emission limitations listed in Section VIII. B below during the usage of these alternative NOx emission reduction methods.

## VIII. Applicable Requirements

### A. State-only Enforceable Operational and Emission Limitations

The Permittee shall be subject to the state-only operational and emission limitations identified in Table 4 below.

**Table 4 – State-Only Enforceable Operational and Emission Limitations**

| Item No. | Regulatory Cite | Applicable Emission Unit | Applicable Requirement |
|---|---|---|---|
| 1. | Env-A 1403 | All devices subject to RSA 125-I and Env-A 1400 | All devices or processes shall comply with Env-A 1400 *(Regulated Toxic Air Pollutants).* |
| 2. | Env-A 1404.01(d) | All devices subject to RSA 125-I and Env-A 1400 | Documentation for the demonstration of compliance shall be retained at the facility and shall be made available to DES for inspection upon request. |
| 3. | Env-A 1405.01 | All devices subject to RSA 125-I and Env-A 1400 | A) The owner of a new or modified device or process requiring a permit under this chapter shall submit an application for a temporary permit in accordance with Env-A 607.03.<br>B) Pursuant to RSA 125-I:5,I, the owner shall not operate the device or process until a temporary permit is issued. |
| 4. | Env-A 1406.01 | All devices subject to RSA 125-I and Env-A 1400 | The owner of any device or process that emits an RTAP shall determine compliance with the AAL by using one of the methods provided in Env-A 1406.02, Env-A 1406.03, Env-A 1406.04, or Env-A 1406.05. Upon request, the owner of any device or process that emits an RTAP shall provide documentation of compliance with the AAL to DES. |

| Table 4 – State-Only Enforceable Operational and Emission Limitations | | | |
|---|---|---|---|
| **Item No.** | **Regulatory Cite** | **Applicable Emission Unit** | **Applicable Requirement** |
| 5. | Env-A 1002.04 Fugitive Dust | Facility wide | The Permittee shall prevent, abate, and control fugitive dust emissions, including fugitive coal dust.[7] During coal handling, the Permittee shall use best management practices, which may include the use of covers on the exposed, nonworking areas of the coal piles and the use of dust suppressants especially during coal unloading. |
| 6. | Env-A 1605.01Sulfur Content for Gaseous Fuels[8] | SR4, SR5, SR6, SRCT, SREG | The sulfur content of gaseous fuels shall not exceed 15 grains of sulfur per 100 cubic feet of gas at standard temperature and pressure. |



## B. Federally Enforceable Operational and Emission Limitations

1. The Permittee shall be subject to the emission limitations summarized in Table 5 below for the listed fuel burning devices.

| Table 5 – Summary of Emission Limitations | | | | | |
|---|---|---|---|---|---|
| **Item No.** | **Pollutant** | **SR4 Unit 4** | **SR5 Unit 5** | **SR6 Unit 6** | **SRCT Combustion Turbine** |
| 1. | $SO_2$ | 2.4 lb/MMBtu based on a 24-hour calendar day average | 2.4 lb/MMBtu based on a 24-hour calendar day average | 2.4 lb/MMBtu based on a 24-hour calendar day average | NA |
| 2. | $SO_2$ Emissions Cap for Schiller Station, Merrimack Station and Newington Station combined | 55,150 tons per calendar year | | | NA |
| 3. | NOx | 0.50 lb/MMBtu based on a 24-hour calendar day average; 0.46 | 0.50 lb/MMBtu based on a 24-hour calendar day average; 0.46 | 0.50 lb/MMBtu based on a 24-hour calendar day average; 0.46 | 0.90 lb/MMBtu based on a 24-hour calendar day average; 235 lb/hr |

[7] To comply with this provision, PSNH shall use Best Management Practices to manage and minimize fugitive coal dust. See the Best Management Practice policies established by PSNH in their standard operating procedures for the cold weather coal bunkering, dust suppression operation, duties of person on dock, and coal unloading operational checks.

[8] Env-A 1605 contains the most current requirement for the sulfur content of gaseous fuels. Env-A 1605 is state enforceable only because it is not included in New Hampshire's State Implementation Plan (SIP). 40 CFR 52 contains the New Hampshire rules that have been approved by EPA and adopted as part of the SIP. Env-A 402.03, effective on December 27, 1990, lists the federally enforceable sulfur limit for gaseous fuels because it was adopted as part of the SIP on September 14, 1992. Upon approval by EPA and adoption into New Hampshire's SIP, Env-A 1605 will supercede Env-A 402.03, which will expire.

| Table 5 – Summary of Emission Limitations | | | | | |
|---|---|---|---|---|---|
| **Item No.** | **Pollutant** | **SR4 Unit 4** | **SR5 Unit 5** | **SR6 Unit 6** | **SRCT Combustion Turbine** |
| | | lb/MMBtu based on an annual average; 287.5 lb/hr and 1158.5 tons per consecutive 12-month period | lb/MMBtu based on an annual average; 287.5 lb/hr and 1158.5 tons per consecutive 12-month period | lb/MMBtu based on an annual average; 287.5 lb/hr and 1158.5 tons per consecutive 12-month period | based on the maximum gross heat input of 290 MMBtu/hr |
| 4. | CO | NA | NA | NA | NA |
| 5. | TSP | 0.10 lb/MMBtu; 251.85 tons per consecutive 12-month period | 0.10 lb/MMBtu; 251.85 tons per consecutive 12-month period | 0.10 lb/MMBtu; 251.85 tons per consecutive 12-month period | 0.10 lb/MMBtu |
| 6. | Opacity | 40% for any continuous 6-minute period | 40% for any continuous 6-minute period | 40% for any continuous 6-minute period | 20% for any continuous 6-minute period |



2. The Permittee shall be subject to the federally enforceable operational and emission limitations identified in Table 6 below:

| Table 6 – Federally Enforceable Operational and Emission Limitations | | | |
|---|---|---|---|
| **Item No.** | **Regulatory Cite** | **Applicable Emission Unit** | **Applicable Requirement** |
| 1. | 40 CFR 76.7(a)(2) Acid Rain NOx Emission Reduction Program and Env-A 1211.03(c)(2)(b) NOx RACT for Utility Boilers | SR4, SR5, SR6 | The Permittee shall be limited to 0.50 lb NOx/MMBtu heat input on a 24-hour calendar day average basis [Env-A 1211.03] and 0.46 lb NOx/MMBtu heat input on an annual average basis [40 CFR Part 76]. Based upon a maximum heat input of 575 MMBtu/hr, the Permittee shall be limited to 287.5 lb/hr on a 24-hour calendar day average basis (based on 0.50 lb/MMBtu), and 1158.5 tons per consecutive 12-month period (based on 0.46 lb/MMBtu). |
| 2. | State Permits to Operate Nos. PO-B-1629, PO-B-1630, and PO-B-1631, and Env-A 1604.01(c)(2) Fuel Specifications for No. 6 Fuel Oil | SR4, SR5, SR6 | The sulfur content of No. 6 Fuel Oil shall not exceed 2.00 percent sulfur by weight. |
| 3. | State Permits to Operate Nos. PO-B-1629, PO-B-1630, and PO-B-1631, and Env-A 1606.01 (a) Fuel Specifications for Coal | SR4, SR5, SR6 | Based on air quality modeling, the sulfur content[9] of the bituminous coal shall not exceed 1.3 lb/MMBtu gross heat content based on a 3-month rolling average. |

[9] DES streamlined the sulfur content limits. The requirements of Env-A 1606.01(a) are less stringent requiring the sulfur content to

| Table 6 – Federally Enforceable Operational and Emission Limitations | | | |
|---|---|---|---|
| **Item No.** | **Regulatory Cite** | **Applicable Emission Unit** | **Applicable Requirement** |
| 4. | State Permits to Operate Nos. PO-B-1629, PO-B-1630, and PO-B-1631 | SR4, SR5, SR6 | PSNH shall use natural gas to light-off oil fires.  |
| 5. | State Permits to Operate Nos. PO-B-1629, PO-B-1630, and PO-B-1631 and Env-A 606 and Env-A 300 | SR4, SR5, SR6 | Based on air quality modeling, the maximum emission rate of $SO_2$ from each device shall be limited to 2.4 lb/MMBtu heat input averaged over each 24-hour calendar day period. |
| 6. | State Permits to Operate Nos. PO-B-1629, PO-B-1630, and PO-B-1631 | SR4, SR5, SR6 | A) Maximum fuel consumption rate of bituminous coal shall be limited to 22.51 tons per hour, not to exceed 197,187.6 tons during any consecutive 12-month period.[10]<br>B) Maximum fuel consumption rate of No. 6 fuel oil shall be limited to 3,833.33 gallons per hour, not to exceed 33.58 million gallons during any consecutive 12-month period.[11] |
| 7. | State Permits to Operate Nos. PO-B-1629, PO-B-1630, and PO-B-1631and Env-A 405.01 State Acid Deposition Control Program | SR4, SR5, SR6 | The total $SO_2$ emissions from Schiller Station's Steam Generating Units Nos. 4, 5, and 6, Newington Station, and Merrimack Station shall not exceed 55,150 tons per calendar year. |
| 8. | State Permits to Operate Nos. PO-B-1629, PO-B-1630, and PO-B-1631, and Env-A 2003.01 and 2003.04 (b) Visible Emission Standard for Fuel Burning Devices | SR4, SR5, SR6 | During normal operation, the average opacity shall not exceed 40 percent for any continuous 6-minute period. The 6-minute time blocks shall be established to provide for ten 6-minute blocks per calendar hour. The first 6-minute time block in any calendar hour in excess of the opacity standard will not be considered an excess emission. Any subsequent time block in the same calendar hour in exceedance of the opacity standard shall be considered an excess emission. To be considered an excess emission, the subsequent time block in the same calendar hour in excess of the opacity standard does not have to be consecutive in occurrence with the first exceedance. The average opacity may exceed 40 percent for a non-overlapping set or sets of time up to 60 minutes in any 8-hour period during startup, shutdown, malfunction, soot blowing, grate cleaning, and cleaning of fires. |
| 8. | State Permits to Operate Nos. PO- | SR4, SR5, SR6 | A) Pursuant to an agreement between PSNH and DES, the maximum emission rate of TSP, including emission rates experienced during |

not exceed 2.8 lb/MMBtu and 2.0 lb/MMBtu averaged over any consecutive 3-month period.

[10] The heating value of bituminous coal is assumed to be 12,750 BTU/lb. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

[11] The heating value of No. 6 fuel oil is assumed to be 150,000 BTU/gallon. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

| Table 6 – Federally Enforceable Operational and Emission Limitations | | | |
|---|---|---|---|
| **Item No.** | **Regulatory Cite** | **Applicable Emission Unit** | **Applicable Requirement** |
| | B-1629, PO-B-1630, and PO-B-1631, and Env-A 2003.06(b)(3) Particulate Emission Standards | | periods of flyash reinjection, shall be limited to 0.10 lb/MMBtu for each device.<br>B) The maximum emissions of TSP for each device shall not exceed 251.85 tons during any consecutive 12-month period.<br>C) The maximum increase in emissions of TSP with flyash reinjection shall be less than 15 tons per consecutive 12-month period[12] for all boilers combined using the most recent stack test results (in lb/hr) with and without flyash reinjection and the actual operating hours as indicated by the following equation:<br>$\frac{\Delta TSP_4 * HO_4 + \Delta TSP_5 * HO_5 + \Delta TSP_6 * HO_6}{2000} < 15 \text{ tons TSP}$<br>Where:<br>)$TSP_i$ = The difference between the TSP emissions from Steam Generating Unit No. i (i = 4, 5, or 6) in lb TSP/hr, with and without flyash reinjection, obtained during the stack testing of each boiler; and<br>$HO_i$ = The hours of operation of flyash reinjection to Steam Generating Unit No. i, in hours, during any rolling 12-month period.<br>D) If PSNH conducts $PM_{10}$ emissions testing at each of the boilers during flyash reinjection, the maximum increase in emissions of $PM_{10}$ with flyash reinjection shall be less than 15 tons per consecutive 12-month period using the most recent stack test results (in lb/hr) with and without flyash reinjection and the actual operating hours. The maximum increase in TSP emissions with flyash reinjection shall be less than 25 tons per consecutive 12-month period using the most recent stack test results (in lb/hr) with and without flyash reinjection and the actual operating hours. The maximum increase in $PM_{10}$ and TSP emissions with flyash reinjection compared to operation without flyash reinjection shall be calculated as indicated by the following equations:<br>$\frac{\Delta TSP_4 * HO_4 + \Delta TSP_5 * HO_5 + \Delta TSP_6 * HO_6}{2000} < 25 \text{ tons TSP}$<br>$\frac{\Delta PM10_4 * HO_4 + \Delta PM10_5 * HO_5 + \Delta PM10_6 * HO_6}{2000} < 15 \text{ tons } PM_{10}$<br>Where:<br>)$TSP_i$ = The difference between the TSP emissions from Steam Generating Unit No. i (i = 4, 5, or 6) in lb TSP/hr, with and without flyash reinjection, obtained during the stack testing of each boiler;<br>)$PM10_i$ = The difference between the $PM_{10}$ emissions from Steam Generating Unit No. i (i = 4, 5, or 6) in lb $PM_{10}$/hr, with and without flyash reinjection, obtained during the stack testing of each boiler; and<br>$HO_i$ = The hours of operation of flyash reinjection to Steam Generating Unit No. i, in hours, |

[12] The TSP limit of 15 tons per consecutive 12-month period assumes that monitoring for $PM_{10}$ will not be conducted and that all particulate matter emitted is $PM_{10}$.

| Table 6 – Federally Enforceable Operational and Emission Limitations | | | |
|---|---|---|---|
| **Item No.** | **Regulatory Cite** | **Applicable Emission Unit** | **Applicable Requirement** |
| | | | during any rolling 12-month period. |
| 9. | 40 CFR 72.9 (e) Excess Emission Requirements | SR4, SR5, SR6, | If any of these devices have excess emissions[13] of $SO_2$ or NOx in any calendar year, then PSNH shall perform the following as required by 40 CFR 77:<br>A) Submit a proposed offset plan;<br>B) Pay without demand the penalty including interest on that penalty; and<br>C) Comply with an approved offset plan. |
| 10. | State Permits to Operate Nos. PO-B-1629, PO-B-1630, and PO-B-1631 ESP Operating Requirements | SR4, SR5, SR6 | A) PSNH shall maintain and operate the ESP system for the control of particulate matter, in accordance with the manufacturer's recommendations, as specified in the ARD-2 Form submitted to the DES on July 1, 1996.<br>B) The ESP unit shall be operational at all times that the facility is in operation.<br>C) The ESP differential pressure shall be maintained between 0.6 and 5 inches of water.<br>D) The inlet temperature of the ESP as measured at the outlet of the air preheater shall not exceed 785EF.<br>E) The outlet temperature in the ESP shall not exceed 785EF.<br>F) The maximum secondary voltage drop between each pair of plates shall be 45 KVDC.<br>G) Except during maintenance, the penthouse blowers and heaters shall run when the ESP is in operation to prevent the migration and buildup of dirt particles on the emitter insulators.<br>H) Each ESP unit shall be four fields in length, and the gas passage width shall be 12 inches.<br>I) PSNH shall continuously operate and maintain the ESP system to minimize particulate matter emissions, to meet permit conditions, and to maintain compliance with Env-A 2000. The operation and maintenance shall include the normal procedures for scheduled checking and cleaning of the hoppers and transport lines. PSNH shall inspect and perform necessary maintenance on the ESP during each planned outage. All maintenance procedures performed and corrective actions taken on the ESP system shall be recorded in the facility work management system. The work management system shall be maintained at the facility and shall be made available for review at the request of the DES. All deviations from the operation criteria described above and the corrective actions taken shall be recorded in the work management system. |
| 11. | 40 CFR 72, 73, 76, and 77 Acid Rain Provisions | SR4, SR5, SR6 | PSNH shall comply with the applicable Federal Acid Rain Program provisions. |
| 12. | Env-A 1211.13 (b) and (e) NOx | SRCT | As a load shaving unit, the combustion turbine shall be limited to 0.90 lb NOx/MMbtu or 261 lb NOx/hr based on the maximum gross heat input of |

[13] Pursuant to 40 CFR 72.2, "excess emissions" are defined as any tonnage of $SO_2$ emitted in a calendar year that exceeds the Federal Acid Rain emission limitation and as any tonnage of NOx emitted in a calendar year that exceeds the annual tonnage equivalent of the Federal NOx Acid Rain emission limitation taking into account the unit's heat input for the year.

| Table 6 – Federally Enforceable Operational and Emission Limitations | | | |
|---|---|---|---|
| **Item No.** | **Regulatory Cite** | **Applicable Emission Unit** | **Applicable Requirement** |
| | RACT for Load Shaving Units | | 290 MMBtu/hr. The emissions from load shaving units shall be included in the calculation of both the actual and theoretical potential emissions from the facility. |
| 13. | Env-A 1211.13 (d) NOx RACT for Combustion Turbines | SRCT | If the actual NOx emissions from the load shaving unit exceed 50 tons during any consecutive 12-month period, the load shaving unit shall immediately become subject to the requirements of Env-A 1211.06. |
| 14. | Env-A 1604.01 (a) Sulfur Content for JP-4 | SRCT | The sulfur content of JP-4 shall not exceed 0.40 percent sulfur by weight. |
| 15. | State Permit to Operate No. PO-B-0037 and Env-A 2003.02 Visible Emission Standards for Fuel Burning Devices | SRCT | The opacity shall not exceed an average of 20 percent for any continuous 6-minute period. |
| 16. | State Permit to Operate No. PO-B-0037 and Env-A 2003.07 Particulate Emission Standards | SRCT | The maximum emission rate of TSP from this device shall be 0.10 lb/MMBtu. |
| 17. | State Permit to Operate No. PO-B-0037 | SRCT | A) Maximum fuel consumption rate of JP-4 fuel shall not exceed 2,071 gallons per hour and 18.5 million gallons during any consecutive 12-month period. [14]<br>B) Maximum fuel consumption rate of natural gas shall not exceed 290,000 cubic feet per hour and 2,540 million cubic feet during any consecutive 12-month period.[15] |
| 18. | 40 CFR 63 Subpart YYYY MACT for Stationary Combustion Turbines | SRCT | The MACT is applicable to the combustion turbine, but no emission limitations, operating requirements or monitoring, recordkeeping, or reporting requirements are specified for existing units. |
| 19. | 40 CFR 52[16] Sulfur Content for Gaseous Fuels | SR4, SR5, SR6, SRCT, SREG | The sulfur content of gaseous fuels shall not exceed 5 grains of sulfur per 100 cubic feet of gas at standard temperature and pressure. |
| 20. | Env-A 1211.01 (j) and 1211.11 NOx | SREG | Each emergency generator shall be limited to less than 500 hours of operation during any consecutive 12-month period. The combined |



[14] The heating value of the fuel is assumed to be 140,000 BTU/gallon. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

[15] The heating value of the fuel is assumed to be 1000 BTU/$ft^3$. The fuel consumption limits may vary based on the actual heat content of the fuel burned.

[16] 40 CFR 52 contains the New Hampshire rules that have been approved by EPA and adopted as part of the State Implementation Plan (SIP). Env-A 402.03, effective on December 27, 1990, contained the sulfur limit for gaseous fuels was adopted as part of the SIP on September 14, 1992. Env-A 402.03 and is still considered to be federally enforceable until such time as the SIP is amended and approved by the EPA. This requirement will expire at such time that Env-A 1605, the amended rule containing the sulfur content limit for gaseous fuels, is approved by EPA and adopted as part of the SIP.

| Table 6 – Federally Enforceable Operational and Emission Limitations | | | |
|---|---|---|---|
| **Item No.** | **Regulatory Cite** | **Applicable Emission Unit** | **Applicable Requirement** |
| | RACT for Emergency Generators | | theoretical potential NOx emissions from all emergency generators combined are limited to less than 25 tons for any consecutive 12-month period. The NOx RACT requirements of Env-A 1211.11 shall apply if neither the hourly limitation nor the NOx emission limitation is met. The emissions from emergency generators shall be included in the actual and theoretical potential emissions from the facility. |
| 21. | State Permit to Operate No. PO-B-1867 and Env-A 2003.01 Visible Emission Standards for Fuel Burning Devices | SREG | The opacity shall not exceed an average of 40 percent for any continuous 6-minute period. |
| 22. | Env-A 2003.07 (c)(1) Particulate Emission Rate | SREG | The TSP emission rate shall not exceed 0.60 lb/MMBtu based on a 24-hour calendar day. |
| 23. | State Permit to Operate PO-BP-2688 Visible Emissions | SRCC and Facility wide | A) PSNH shall not cause or allow visible fugitive emissions or visible stack emissions to exceed an average of 20 percent opacity for any continuous 6-minute period.<br>B) The primary coal crusher and granulator shall be fully enclosed in an aboveground building to reduce fugitive emissions. Any failures of this enclosure to prevent fugitive emissions shall be repaired immediately.<br>C) If PSNH observes visible emissions from the coal crusher enclosure or observes breaks in the structure of the enclosure, PSNH shall make the appropriate repairs.<br>D) PSNH shall use best management practices to control fugitive particulate emissions from the process equipment, unloading area, and the coal piles. |
| 24. | State Permit to Operate PO-BP-2688 Coal Throughput | SRCC | The maximum operating rate of the Primary Coal Crusher shall be limited to 350 tons per hour of coal. Based on the maximum allowable coal consumption of each boiler, the maximum annual coal throughput of the Primary Coal Crusher shall be limited to 591,563 tons per consecutive 12-month period. |
| 25. | Env-A 1002 Fugitive Dust | Facility wide | The Permittee shall take precautions, such as wetting, covering, shielding or vacuuming, to prevent, abate, and control fugitive dust emissions during bulk hauling activities, including the transportation and transfer of mineral material over public roads. |

| Table 6 – Federally Enforceable Operational and Emission Limitations | | | |
|---|---|---|---|
| **Item No.** | **Regulatory Cite** | **Applicable Emission Unit** | **Applicable Requirement** |
| 26. | 40 CFR 68 and 1990 CAA Section 112(r)(1) Accidental Release Program Requirements | Facility wide | The Permittee maintains no quantities of regulated substances above the threshold quantities established by the EPA under 40 CFR 68.130. Administrative controls will be established by the Permittee in order to ensure that inventories of regulated substances are maintained below the specified threshold quantities. The facility is subject to the Purpose and General Duty clause of the 1990 Clean Air Act, Section 112(r)(1). General Duty includes the following responsibilities:<br>(A) Identify potential hazards that may result from such releases using appropriate hazard assessment techniques;<br>(B) Design and maintain a safe facility;<br>(C) Take steps necessary to prevent releases; and<br>(D) Minimize the consequences of accidental releases that do occur.<br>If, in the future, the Permittee wishes to store quantities of regulated substances above the threshold levels, a risk management plan shall be submitted to the Part 68 implementing agency prior to exceeding threshold quantity levels in a timely manner. |
| 27. | 40 CFR 61 Subpart M, Env-A 504.01(d) and Env-A 1800 Asbestos Management and Control | Facility wide | PSNH shall comply with the asbestos requirements of Env-A 1800 and 40 CFR 61.145 during demolition and/or renovation. |



### C. Annual $SO_2$ Allowance Programs (40 CFR 72, 40 CFR 73, Env-A 611.08, and Env-A 2900)

1. $SO_2$ Allowance Allocation

   a) In accordance with 40 CFR Part 73, $SO_2$ allowances pursuant to the Federal Acid Rain Program for this facility are allocated as indicated in the following table:

| Table 7 – $SO_2$ Allowance Allocation (tons) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** |
| **SR4 (Unit 4)** | 1514 | 1514 | 1514 | 1514 | 1514 | 1514 | 1514 | 1440 |
| **SR5 (Unit 5)** | 1457 | 1457 | 1457 | 1457 | 1457 | 1457 | 1457 | 1298 |
| **SR6 (Unit 6)** | 1642 | 1642 | 1642 | 1642 | 1642 | 1642 | 1642 | 1646 |

   b) Pursuant to Env-A 2906.02 [State enforceable only], *Allocation of SO2 Allowances*, for 2007 and subsequent years, PSNH's Schiller, Merrimack and Newington Stations shall

transfer the $SO_2$ Allowances allocated pursuant to the Federal Acid Rain Program to DES, and DES shall transfer $SO_2$ allowances (7,289 tons) calculated pursuant to Env-A 2900 plus any potential bonus allowances calculated pursuant to Env-A 2906.07, Bonus Allocation of SO2 Allowances back to PSNH's Schiller, Merrimack, and Newington stations. The amount of $SO_2$ Allowances allocated to PSNH Schiller shall be determined according the methodology in Env-A 2906.05, *Allowance Allocation Methodology*.



2. Compliance

   a) Pursuant to 40 CFR 73.35, the Permittee shall comply with the $SO_2$ emission limitation requirements.

   b) At the end of each calendar year, the Permittee shall hold sufficient $SO_2$ allowances equivalent to the $SO_2$ emissions during that calendar year.

3. General Provisions

   Pursuant to Env-A 611.07, $SO_2$ allowances lawfully held or acquired by the Permittee shall be governed by the following:

   a) Emissions from the affected units shall not exceed any $SO_2$ allowances held by the affected unit;

   b) The number of $SO_2$ allowances held by the Permittee shall not be limited;

   c) The Permittee shall not use $SO_2$ allowances to avoid compliance with any other applicable requirement of either state or federal rules or of the provisions of the Clean Air Act; and

   d) Any $SO_2$ allowances held by the Permittee shall be accounted for according to the procedures established in the applicable provisions of 40 CFR 72, 40 CFR 73, and 40 CFR 76.

4. Excess Emissions

   Pursuant to 40 CFR 72.9(e), if the Permittee has excess emissions, the Permittee shall submit a proposed offset plan as required under 40 CFR 77 and pay the penalty and any interest without demand pursuant to 40 CFR 77.

5. Allowance Transfer

   The Permittee shall transfer allowances according to the procedures in 40 CFR 73.50.

## D. Ozone Season NOx Budget Trading Program (Env-A 3200)

1. NOx Allowance Allocation

a) Pursuant to Env-A 3207.03, *Allocation of Allowances,* the amount of NOx allowances allocated to PSNH shall be as set forth in the Table 8 below for the 2003, 2004, and 2005 control periods (ozone seasons of May 1 through September 30):



| Table 8 – NOx Allowance Allocation for the Ozone Season (tons) | | | |
|---|---|---|---|
| **Emission Unit** | **2003** | **2004** | **2005** |
| **SR4 (Unit 4)** | 146 | 128 | 110 |
| **SR5 (Unit 5)** | 142 | 124 | 106 |
| **SR6 (Unit 6)** | 121 | 106 | 91 |
| **SRCT** | 0 | 0 | 0 |

2. The NOx allowances shall be allocated to PSNH for the 2006 control period (ozone season) and subsequent control periods according to the methodology in Env-A 3207.04, *Future Allowance Allocation Methodology*.

3. Ozone Season NOx Emissions Cap

   a) Pursuant to Env-A 3200, PSNH shall not emit NOx emissions during any control period in excess of the amount of NOx allowances held in PSNH's NATS compliance account for that control period as of the allowance transfer deadline of November 30.

   b) Pursuant to Env-A 3200, PSNH may obtain additional NOx allowances to comply with the NOx Budget Program.

4. Allowance Transfer and Use

   a) Pursuant to Env-A 3209.01, *Marketable Emissions Authorization*, an allowance shall be a marketable emissions authorization that may be bought, sold, or traded at any time during any year, not just the current year.

   b) Pursuant to Env-A 3209.02, *Limited Authorization,* an allowance shall only be used for compliance with the NOx Budget Program in a designated compliance year by being in a compliance as of the allowance transfer deadline of November 30, or by being transferred into the compliance account by an allowance transfer submitted by the allowance transfer deadline.

   c) PSNH shall comply with the NOx allowance transfer and use provisions pursuant to Env-A 3209, *Allowance Transfer and Use*.

d) Pursuant to Env-A 3209.09, *Price Disclosure,* subject to a claim of confidentiality in accordance with Env-A 103, PSNH shall make available to any person, all information regarding transaction cost and allowance price.

5. Allowance Banking



a) Pursuant to Env-A 3210.01, *Retention of Unused Allowances,* the banking of allowances shall be permitted to allow the retention of unused allowances from one year to a future year in either a compliance account, an overdraft account, or a general account.

b) Pursuant to Env-A 3210.02, *Account Designation,* unless otherwise permitted pursuant to Env-A 3210.04, *Early Reduction Allowances,* unused allowances as of the end of the allowance transfer deadline shall be retained in the compliance, overdraft, or general account and designated as banked allowances after the NATS administrator has made all deductions for a given control period from the compliance account or overdraft account pursuant to Env-A 3215, *End-of-Season Reconciliation.*

c) PSNH shall comply with the NOx allowance banking provisions pursuant to Env-A 3210, *Allowance Banking*.

6. End-of-Season Reconciliation

a) Pursuant to Env-A 3206.01, *Limited Authorization*, PSNH shall, no later than November 30 of each calendar year, hold respective a quantity of NOx allowances in PSNH Schiller's current year NATS account that is equal to or greater than the total NOx emitted from PSNH Schiller during the period May 1 through September 30 of the subject year.

b) PSNH shall determine compliance and reconcile allowances by November 30 of each year for the control period of that year pursuant to Env-A 3215.

7. Authorized Account Representative (Env-A 3211.04)

a) Only the AAR or alternate AAR shall request transfers of allowances in a NATS account.

b) The AAR or alternate AAR shall be responsible for all transactions and reports submitted to the NATS.

c) The alternative AAR shall have the same authority as the primary representative, however, all correspondence from the NATS administrator shall be directed to the primary AAR.

d) Pursuant to Env-A 3211.05 (f), PSNH shall replace an AAR by submitting a revised Account Certificate of Representation to the NATS administrator along with the information contained in Env-A 3211.05(b) and (c) and the name of the AAR who is being replaced.

8. Conversion of Allowances to DERs

Pursuant to Env-A 3207.05, PSNH Schiller may convert unused allowances to DERs in accordance with Env-A 3206.02(e) for use as NSR offsets during the ozone season and the procedures for DER generation pursuant to Env-A 3103. Upon conversion, PSNH Schiller shall surrender those converted allowances as if they had been used for actual emissions. Under no other circumstances shall unused allowances be converted to, or used as, DERs or ERCs.



9. Prohibition on Property Rights (Env-A 3207.07)

   a) Neither an allowance nor any future allocations, which are subject to modification by DES, shall constitute a security or other form of property.

   b) An allowance shall not be used prior to the control period for which the allowance is allocated.

10. Excess Emissions and Enforcement Provisions (Env-A 3217)

    a) If emissions exceed the allowances held by PSNH Schiller by the allowance transfer deadline (November 30), the NATS administrator shall automatically deduct three tons of allowances from the next control period for every ton of excess emissions from PSNH Schiller's compliance account or overdraft account.

    b) In accordance with RSA 125-J:4-a, for purposes of enforcement of the NOx Budget Program, in determining the number of days of violation, any excess emissions for the control period shall presume that each day in the control period of 153 days, constitutes a day in violation unless PSNH Schiller can demonstrate, through use of verifiable emissions data that a lesser number of days should be considered. In addition, each ton of excess emissions shall constitute a separate violation.

## E. Annual and Non-Ozone Season NOx Allowance Program (Env-2900 and NOx RACT Order No. ARD-98-001)

1. Pursuant to NOx RACT Order No. ARD-98-001, PSNH's Schiller, Merrimack, and Newington stations shall comply with a NOx emissions cap of 8208 tons for the non-ozone season beginning on October 1 and ending on April 30. Ozone season DERs and non-ozone season DERS may be used to comply with this non-ozone season limit. Previously generated (1995 through 1998) DERs may be used to comply with this emissions cap. DERs may be generated from PSNH's Newington and Schiller Stations, in accordance with the protocols submitted by PSNH to comply with this emissions cap.

2. Pursuant to Env-A 2900 [State enforceable only], *Multiple Pollutant Annual Budget Trading and Banking Program*, and subsequent revisions, for 2007 and subsequent years, DES shall calculate the difference between the annual NOx budget (no more than 3,644 tons) and the ozone season NOx allowances allocated pursuant to Env-A 3200.

3. Pursuant to Env-A 2900 [State enforceable only], *Multiple Pollutant Annual Budget Trading and Banking Program*, and subsequent revisions, for 2007 and subsequent years, DES shall allocate annual NOx allowances equivalent to the difference between the annual NOx budget

and the ozone season NOx allowances to PSNH's Schiller, Merrimack, and Newington stations.

4. The amount of annual NOx Allowances allocated to PSNH Schiller for 2007 and subsequent years shall be determined according the methodology in Env-A 2906, Allowance Allocation.


**F. Multiple Pollutant Annual Budget Trading and Banking Program (Env-A 2900) [State Enforceable Only]**

1. $SO_2$ Allowance Allocation

   Pursuant to Env-A 2900, *Multiple Pollutant Annual Budget Trading and Banking Program*, and subsequent revisions, DES shall allocate $SO_2$ Allowances to PSNH Schiller according to the methodology in Env-A 2906.05, *Allowance Allocation Methodology* for 2007 and subsequent years.

2. NOx Allowance Allocation

   Pursuant to Env-A 2900, *Multiple Pollutant Annual Budget Trading and Banking Program*, and subsequent revisions, DES shall allocate NOx Allowances to PSNH Schiller according to the methodology in Env-A 2906.05, *Allowance Allocation Methodology* for 2007 and subsequent years.

3. $CO_2$ Allowance Allocation

   Pursuant to Env-A 2900, *Multiple Pollutant Annual Budget Trading and Banking Program*, and subsequent revisions, DES shall allocate $CO_2$ Allowances to PSNH Schiller according to the methodology in Env-A 2906.05, *Allowance Allocation Methodology* for 2007 and subsequent years.

4. Mercury Budget and Allowance Allocation

   Upon subsequent revisions to Env-A 2900, *Multiple Pollutant Annual Budget Trading and Banking Program*, DES shall establish an annual mercury (Hg) budget as determined by the Legislature and allocate Hg Allowances to PSNH Schiller according to a methodology developed by DES.

5. Allowance Transfer and Use

   a) Pursuant to Env-A 2907.01, *Marketable Emissions Authorization*, an allowance shall be a marketable emissions authorization that may be bought, sold, or traded at any time during any year, not just the current year.

   b) Pursuant to Env-A 2907.02, *Limited Authorization,* an allowance shall only be used for compliance with the Multiple Pollutant Annual Budget Trading and Banking Program in a designated compliance year by being in a compliance or overdraft account as of the allowance transfer deadline, or by being transferred into the compliance account by an allowance transfer submitted by the allowance transfer deadline.

c) PSNH shall comply with the allowance transfer and use provisions pursuant to Env-A 2907, *Allowance Transfer and Use,* and Env-A 2909, *Allowance Tracking System*.

d) Pursuant to Env-A 2907.08, *Price Disclosure,* subject to a claim of confidentiality in accordance with Env-A 103, PSNH shall make available to any person, all information regarding transaction cost and allowance price.



e) Pursuant to Env-A 2907.09, *Use of Allowances by Utilities,* and RSA 125-J:5, X, the use of allowances by a utility as defined in RSA 362:2, shall be subject to such additional conditions as ordered pursuant to applicable law by the PUC.

6. Allowance Banking

a) Pursuant to Env-A 2908.01, *Retention of Unused Allowances,* the banking of allowances shall be permitted to allow the retention of unused allowances from one year to a future year in either a compliance account, an overdraft account, or a general account.

b) Pursuant to Env-A 2908.02, *Account Designation,* unless otherwise permitted pursuant to Env-A 2909.03, *General Accounts,* unused allowances as of the end of the allowance transfer deadline shall be retained in the compliance, overdraft, or general account and designated as banked allowances after the ATS administrator has made all deductions for a given year from the compliance account or overdraft account pursuant to Env-A 2913, *Compliance Certification.*

c) Pursuant to Env-A 2908.03, *Bonus Early Allowances*, bonus early allowances shall be eligible for a one-time conversion to allowances in 2007. Bonus early allowances that are converted to allowances shall not be used as VERs, ERCs, or DERs.

7. Authorized Account Representative (Env-A 2909.04)

a) Only the AAR or alternate AAR shall request transfers of allowances in an ATS account.

b) The AAR or alternate AAR shall be responsible for all transactions and reports submitted to the ATS.

c) The alternative AAR shall have the same authority as the primary representative, however, all correspondence from the ATS administrator shall be directed to the primary AAR.

d) Pursuant to Env-A 2909.05 (f), PSNH shall replace an AAR by submitting a revised Account Certificate of Representation to the ATS administrator along with the information contained in Env-A 2909.05(b) and (c) and the name of the AAR who is being replaced.

8. End-of-Season Reconciliation

a) Pursuant to Env-A 2904.01, *Limited Authorization*, PSNH shall, no later than January 30 of each calendar year, hold respective quantities of $SO_2$, NOx, and $CO_2$ in the PSNH Schiller's respective ATS accounts equal to or greater than the respective total $SO_2$, NOx, and $CO_2$ emitted from PSNH Schiller during the previous year.

b) Pursuant to Env-A 2912.01, *Determination of Compliance*, monitored emissions data as reported by PSNH to the ETS administrator, and as adjusted by the administrator to be in accordance with Env-A 2910, *Emissions Monitoring*, combined with allowance allocations and transfers recorded in the ATS, shall provide the basis for a determination of compliance.



c) PSNH shall determine compliance and reconcile allowances by January 30 of each year beginning in 2008 pursuant to Env-A 2913.

d) Pursuant to Env-A 2912.02, *Request for Deduction of Allowances*, no later than January 30, the AAR shall request the ATS administrator to deduct previous year allowances from the compliance account or overdraft account equivalent to the number of available allowances to cover the emissions during the previous year. The AAR shall identify the compliance account or overdraft account from which the deductions shall be made and shall identify the serial number of the allowances to be deducted. If the AAR does not specify a serial number, allowances useable for that compliance year shall be deducted in the order of their arrival into PSNH Schiller's account, with allocated allowances being deducted first, followed by the deduction of transferred allowances.

e) Pursuant to Env-A 2912.04, *Procurement of Additional Allowances,* if the emissions of PSNH Schiller in the previous year exceed the allowances in PSNH Schiller's compliance account and overdraft account, PSNH Schiller shall obtain additional allowances by January 30 so that the total number of allowances in PSNH Schiller's compliance account and overdraft account, including allowance transfers properly submitted to the ATS administrator by January 30, equals or exceeds the previous year annual emissions rounded to the nearest whole ton.

9. Excess Emissions and Enforcement Provisions (Env-A 2914)

a) If emissions exceed the allowances held by PSNH Schiller by the allowance transfer deadline (January 30), the Allowance Tracking System administrator shall automatically deduct three tons of allowances for every ton of excess emissions.

b) In accordance with RSA 125-O:7, for purposes of enforcement of the Multiple Pollutant Annual Budget Trading and Banking Program, in determining the number of days of violation, any excess emissions for the year shall create a presumption that each day in the year of 365 days, constitutes a day in violation unless PSNH Schiller can demonstrate, through use of verifiable emissions data that a lesser number of days should be considered. In addition, each ton of excess emissions shall constitute a separate violation.

10. Conversion of Allowances to DERs or VERs

a) Pursuant to Env-A 2904.01 (d), allowances shall not be considered offsets, although NOx allowances which are not used to satisfy the requirements of Env-A 2900, and which are not banked, may be converted to non-ozone season NOx DERs in accordance with Env-A 3100.

b) Pursuant to Env-A 2904.02, *Conversion of Allowances to DERs or VERs*, if PSNH converts unused NOx allowances to NOx DERs in accordance with Env-A 2904.01(d) and the procedures for DER generation pursuant to Env-A 3103, or converts unused CO2 allowances to VERs in accordance with Env-A 3800, PSNH shall surrender those converted allowances as if they had been used for actual emissions.

11. Prohibition on Property Rights (Env-A 2904.04)



a) Neither an allowance nor any future allocations, which are subject to modification by DES, shall constitute a security or other form of property.

b) An allowance shall not be used prior to the year for which the allowance is allocated.

## G. Discrete Emission Reduction Trading Program (Env-A 3100)

In accordance with Env-A 3100, NOx RACT Orders Nos. ARD-97-001 and ARD-98-001, and the Notices of Simultaneous Generation and Use of DERs originally submitted on April 10, 1998, and annually thereafter upon entry of the DERs into the registry by DES, PSNH Schiller shall be allowed to bank DERs for PSNH Schiller's own future use.

## H. Monitoring/Testing Requirements

The Permittee is subject to the monitoring/testing requirements as contained in Table 8 below:

**Table 8 – Monitoring/Testing Requirements**

| Item No. | Device | Parameter | Method of Compliance | Frequency of Method | Regulatory Cite |
|---|---|---|---|---|---|
| 1. | SR4, SR5, SR6 | NOx Emissions | For SR4, SR5, and SR6, PSNH shall install, certify, operate and maintain, a NOx-diluent continuous emission monitoring system (consisting of a NOx pollutant concentration monitor and an $O_2$ or $CO_2$ diluent gas monitor) with an automated data acquisition and handling system for measuring and recording NOx concentration (in ppm) averaged on an hourly and 24-hour calendar day basis, $O_2$ or $CO_2$ concentration (in percent $O_2$ or $CO_2$) and NOx mass emission rate (in lb/MMBtu) averaged on an hourly, 24-hour calendar day, and annual basis for each unit. PSNH shall account for total NOx emissions, both NO and $NO_2$, either by monitoring for both NO and $NO_2$ or by monitoring for NO only and adjusting the emissions data to account for $NO_2$. PSNH shall measure and record NOx emissions in lb/hr averaged for one-hour and a 24-hour calendar | Continuously | Env-A 808.02 (a) (new) and 40 CFR 75.10(a)(2), 75.12, and Env-A 1211.03 (f) |

| Table 8 – Monitoring/Testing Requirements | | | | | |
|---|---|---|---|---|---|
| **Item No.** | **Device** | **Parameter** | **Method of Compliance** | **Frequency of Method** | **Regulatory Cite** |
| | | | day, and tons/consecutive 12-month period. PSNH shall calculate hourly, quarterly, and annual NOx emission rates (in lb/mmBtu) by combining the NOx concentration (in ppm), diluent concentration (in percent $CO_2$), and percent moisture according to the procedures in 40 CFR 75 Appendix F. | | |
| 2. | SR4, SR5, SR6, SRCT | NOx Mass Emissions | For SR4, SR5, SR6, and SRCT, PSNH shall calculate hourly NOx mass emissions (in lbs) by multiplying the hourly NOx emission rate (in lbs/mmBtu) by the hourly heat input rate (in mmBtu/hr) and the unit or stack operating time. PSNH shall also calculate quarterly and cumulative year-to-date NOx mass emissions and (in tons) by summing the hourly NOx mass emissions according to the procedures in 40 CFR 75 Appendix F Section 8. | Hourly, quarterly, and cumulative year-to-date | 40 CFR 75.71, and 75.72 and Env-A 3212 and Env-A 2910 |
| 3. | SRCT | NOx Mass Emissions—Units using a NOx concentration and flow monitoring systems | Pursuant to 40 CFR 75.72(e), the Permittee may use a NOx concentration monitoring system and a flow monitoring system to determine NOx mass emissions. When using this approach, the Permittee shall calculate NOx mass according to 40 CFR 75 Appendix F Section 8.2 and 8.3. In addition, since the Permittee must also determine the heat input, the Permittee shall install, certify, operate and maintain a $CO_2$ or $O_2$ diluent monitor in the same location as each flow monitoring system and measure the heat input from each unit using a flow monitor and a $CO_2$ or $O_2$ diluent monitor in the duct. | As specified during the ozone season | 40 CFR 75.72(e) |
| 4. | SR4, SR5, SR6, SRCT | Ozone Season NOx Emission Rate and NOx mass emissions | PSNH, when required, shall determine the ozone season NOx emission rate (in lb/MMBtu) by dividing ozone season NOx mass emissions (in lbs) by heat input. PSNH shall also calculate cumulative NOx mass emissions for the ozone season (in tons) by summing the hourly NOx mass emissions according to the procedures in 40 CFR 75 Appendix F Section 8. | During the ozone season | Env-A 3212.01 and 40 CFR 75.75(b) and 75.72 |
| 5. | SRCT | $CO_2$, $SO_2$, opacity monitoring, recordkeeping, and reporting exemptions | The requirements of 40 CFR 75 Subpart H for $CO_2$, $SO_2$, opacity monitoring, recordkeeping, and reporting do not apply to units that are subject to a State or Federal NOx mass emission reduction program only and are not affected units with an Acid Rain Program emission limitation (i.e., SRCT). | NA | 40 CFR 75.70(a)(2) |
| 6. | SR4, SR5, SR6 | Sulfur Content of No. 6 Fuel | Fuel delivery tickets, other documentation from the fuel supplier or testing in accordance with | Each delivery of fuel | Env-A 806.02 |

| Table 8 – Monitoring/Testing Requirements | | | | | |
|---|---|---|---|---|---|
| **Item No.** | **Device** | **Parameter** | **Method of Compliance** | **Frequency of Method** | **Regulatory Cite** |
| | | Oil | appropriate ASTM test methods that certify the weight-percent of sulfur for each delivery of the No. 6 fuel oil. | | |
| 7. | SR4, SR5, SR6 | Sulfur Content of Bituminous Coal | Documentation from the fuel supplier or testing in accordance with appropriate ASTM test methods that certify the weight-percent of sulfur for each delivery of bituminous coal | Each delivery of fuel | Env-A 806.04 |
| 8. | SR4, SR5, SR6 | Sulfur Content of Blended Fuel | Testing in accordance with appropriate ASTM test methods that certify the weight-percent of sulfur in the blended fuel oil. | Each blending | Env-A 806.02 (b) |
| 9. | SR4, SR5, SR6 | $SO_2$ Emissions | PSNH shall install, certify, operate and maintain, an $SO_2$ CEMS automated data acquisition and handling system for measuring and recording $SO_2$ concentration (in ppm) averaged on an hourly and 24-hour calendar day basis, volumetric gas flow (in scfh), and $SO_2$ mass emissions (in lb/hr averaged over one hour and each 24-hour calendar day, and tons/consecutive 12-month period and tons/calendar year) for each unit. PSNH shall also measure and record the $SO_2$ emission rate (in lb/MMBtu) averaged over each 24-hour calendar day. PSNH shall demonstrate compliance with the State Acid Rain Program emission caps by using the CEMS data. | Continuously | Env-A 808.02 (a)(1) (new) and 40 CFR 75.10 (a)(1) |
| 10. | SR4, SR5, SR6 | $CO_2$ Emissions | PSNH shall install, certify, operate and maintain, a $CO_2$ CEMS automated data acquisition and handling system. PSNH shall measure and record $CO_2$ emissions in lb/hr over each 24-hour calendar day and $CO_2$ concentration in percent on an hourly average and over each 24-hour calendar day. | Continuously | 40 CFR 75.10(a)(3), and State Permits to Operate Nos. PO-B-1629, PO-B-1630, and PO-B-1631 |
| 11. | SR4, SR5, SR6 | Stack volumetric flow rate | PSNH shall install, certify, operate and maintain, a CEMS automated data acquisition and handling system to measure and record stack volumetric flow rate (in kscfm) on an hourly average and over each 24-hour calendar day. | Continuously | 40 CFR 75, Env-A 2910.02, and State Permits to Operate Nos. PO-B-1629, PO-B-1630, and PO-B-1631 |
| 12. | SR4, SR5, SR6 | Heat Input Rate | PSNH shall determine the heat input rate (in MMBtu/hr) to each unit for every hour or part of an hour any fuel is combusted following the procedures in 40 CFR 75 Appendix F. | Hourly | 40 CFR 75.10(c) and Env-A 2910.02 |
| 13. | SR4, SR5, SR6 | Net Electrical Output | PSNH shall monitor net electrical output. | Annually | Env-A 2910.02 and 40 CFR 75 |
| 14. | SR4, SR5, | Ozone Season | PSNH shall calculate ozone season heat input | Hourly during | Env-A 3212.01 |

| Table 8 – Monitoring/Testing Requirements | | | | | |
|---|---|---|---|---|---|
| **Item No.** | **Device** | **Parameter** | **Method of Compliance** | **Frequency of Method** | **Regulatory Cite** |
| | SR6, SRCT | Heat Input | for purposes of providing data needed for determining allocations by summing each unit's hourly heat input determined according to the procedures in 40 CFR 75 for all hours in which the unit operated during the ozone season | ozone season | and 40 CFR 75.75(a) |
| 15. | SR4, SR5, SR6 | Operating Hours | PSNH shall maintain a log of the operating hours of each boiler. | Continuously | State Permits to Operate Nos. PO-B-1629, PO-B-1630, and PO-B-1631 |
| 16. | SR4, SR5, SR6 | Opacity | PSNH shall install, certify, operate and maintain, a continuous opacity monitoring system with the automated data acquisition and handling system for measuring and recording the opacity of emissions (in percent opacity) for each 6-minute period for each unit. As necessary, PSNH shall also use US EPA Method 9 to estimate opacity. | Continuously | 40 CFR 75.10(a)(4) and Env-A 805.02 (old) and Env-A 808.02 (a) (new) and 807.02 (new) |
| 17. | SR4, SR5, SR6 | TSP | PSNH shall conduct stack testing using US EPA Method 5, 17, or 201a or other method approved by DES to determine the TSP emissions. PSNH shall calculate and record the TSP emission rate in lb/MMBtu on a 24-hour calendar day average and tons/consecutive 12-month period using stack test results and operating hours. PSNH may use other EPA-approved emission calculating methods to calculate TSP emissions. | Testing at least every 5 years and upon request by DES and/or EPA | 40 CFR 70.6 (a)(3)(i)(B) and State Permits to Operate Nos. PO-B-1629, PO-B-1630, and PO-B-1631 |
| 18. | SR4, SR5, SR6 | $PM_{10}$ | PSNH shall conduct stack testing using US EPA Method 201a and 202, or other method approved by DES to determine $PM_{10}$ emissions. PSNH shall calculate and record the $PM_{10}$ emission rate in tons/consecutive 12-month period using stack test results and operating hours. PSNH may use other EPA-approved emission calculating methods to calculate $PM_{10}$ emissions. | Testing at least every 5 years and upon request by DES and/or EPA | 40 CFR 70.6 (a)(3)(i)(B) and State Permits to Operate Nos. PO-B-1629, PO-B-1630, and PO-B-1631 |
| 19. | SR4, SR5, SR6 | Differential pressure of ESP | PSNH shall measure the differential pressure of the ESP using pressure differential gauges in the control room or equivalent monitoring device and shall record the pressure reading indicated by each monitoring device. | Daily | 40 CFR 70.6 (a)(3)(i)(B) |
| 20. | SR4, SR5, SR6 | Voltage drop between each ESP plate | PSNH shall measure the voltage drop between each ESP plate using a voltage meter in the control room or equivalent monitoring device and shall record the voltage drop indicated by each monitoring device. | Daily | 40 CFR 70.6 (a)(3)(i)(B) |
| 21. | SR4, SR5, | Outlet | PSNH shall measure and record the outlet | Daily | 40 CFR 70.6 |

| Table 8 – Monitoring/Testing Requirements | | | | | |
|---|---|---|---|---|---|
| **Item No.** | **Device** | **Parameter** | **Method of Compliance** | **Frequency of Method** | **Regulatory Cite** |
| | SR6 | Temperature of the ESP | temperature of the ESP using a DES-approved temperature sensor system | | (a)(3)(i)(B) |
| 22. | SR4, SR5, SR6 | Outlet temperature of the air preheater prior to the ESP | PSNH shall measure and record the outlet temperature of the ESP using a DES-approved temperature sensor system | Daily | 40 CFR 70.6 (a)(3)(i)(B) |
| 23. | SR4, SR5, SR6 | Ammonia slip | PSNH shall conduct stack testing using a DES-approved method to determine the ammonia slip. | At least every 3 years, during optimization tests, and upon request by DES and/or EPA | 40 CFR 70.6 (a)(3)(i)(B) |
| 24. | SR4, SR5, SR6 | Urea Consumption | Flow meter | Daily | 40 CFR 70.6 (a)(3)(i)(B) |
| 25. | SR4, SR5, SR6 | Water usage | PSNH shall monitor the amount of water injected into the SNCR. | Daily | 40 CFR 70.6 (a)(3)(i)(B) |
| 26. | SR4, SR5, SR6 | Damper Positions | PSNH shall maintain a log of the damper positions to indicate the usage and amount of overfire air. | Daily when operating with overfire air | 40 CFR 70.6 (a)(3)(i)(B) |
| 27. | SR4, SR5, SR6 | Operating Hours of Fly Ash Reinjection System Blowers | PSNH shall maintain a log of the operating hours of the flyash reinjection system blowers. | Daily when operating with flyash reinjection | 40 CFR 70.6 (a)(3)(i)(B) |
| 28. | SR4, SR5, SR6 | Fly Ash Injection Rate | PSNH shall maintain a log of the injection rate of the flyash into each boiler. | Daily when operating with flyash reinjection | 40 CFR 70.6 (a)(3)(i)(B) |
| 29. | SR4, SR5, SR6 | Fly Ash Usage | PSNH shall calculate the amount of fly ash reinjected based upon the blower hours of operation multiplied by the flyash reinjection rate. | Daily when operating with flyash reinjection | 40 CFR 70.6 (a)(3)(i)(B) |
| 30. | SRCT | NOx Emissions (for NOx RACT) | PSNH shall conduct stack testing using US EPA Method 20 to determine the NOx emissions. PSNH shall calculate and record the NOx emission rate in lb/MMBtu on a 24-hour calendar average, lb/hr on a 24-hour calendar average, and tons/consecutive 12-month period using the stack test results and operating hours. | Every 3 years and upon written request by DES and/or EPA | Env-A 1211.13 (f) and 1211.21 (d) and Env-A 803.02 and 40 CFR 70.6 (a)(3)(i)(B) |
| 31. | SRCT | Sulfur Content of Liquid Fuels | Fuel delivery tickets, other documentation from the fuel supplier or testing in accordance with appropriate ASTM test methods that certify the weight-percent of sulfur for each delivery of the JP-4 fuel. | Each delivery of liquid fuel | Env-A 809.01 (old) and Env-A 806.02 (new) |

| Table 8 – Monitoring/Testing Requirements | | | | | |
|---|---|---|---|---|---|
| **Item No.** | **Device** | **Parameter** | **Method of Compliance** | **Frequency of Method** | **Regulatory Cite** |
| 32. | SR4, SR5, SR6, SRCT | Sulfur Content of Natural Gas | Documentation from fuel supplier or conduct testing to determine the sulfur content of gaseous fuels. | As requested by DES and/or EPA | Env-A 809.02 (old) and Env-A 806.03 (new) |
| 33. | SRCT | Opacity | US EPA Method 9 | As necessary as determined by PSNH, DES, and/or EPA | 40 CFR 70.6 (a)(3)(i)(B) |
| 34. | SRCT | TSP | PSNH shall calculate and record the TSP emission rate in lb/MMBtu averaged over 24-hour calendar day, lb/hr, tons/month, and tons/consecutive 12-month period using fuel consumption data and EPA-approved emission factors or stack test results. | Daily and Monthly | 40 CFR 70.6 (a)(3)(i)(B) |
| 35. | SREG | Sulfur Content of Propane | Fuel delivery tickets, other documentation from the fuel supplier or testing in accordance with appropriate ASTM test methods that certify the weight-percent of sulfur for each delivery of the propane. | Each delivery of gaseous fuel | Env-A 809.02 (old) and Env-A 806.03 (new) |
| 36. | SREG | Operating hours | PSNH shall maintain a log of the operating hours of the emergency generator | Daily | 40 CFR 70.6 (a)(3)(i)(B) |
| 37. | SREG | Fuel Consumption | PSNH shall measure and record the amount of fuel consumed using fuel flow meters and/or inventory purchase records. | Monthly | 40 CFR 70.6 (a)(3)(i)(B) |
| 38. | SREG | NOx, Emissions | PSNH shall calculate and record the NOx, emissions rates in tons per month and tons/consecutive 12-month period using fuel consumption data and EPA-approved emission factors or stack test results. | Monthly | 40 CFR 70.6 (a)(3)(i)(B) |
| 39. | SREG | Opacity | US EPA Method 9 | As necessary as determined by PSNH, DES, and/or EPA | 40 CFR 70.6 (a)(3)(i)(B) |
| 40. | SREG | TSP | PSNH shall calculate and record the TSP emissions in lb/MMBtu averaged each 24-hour calendar day, tons/month, and tons/consecutive 12-month period using fuel consumption data and EPA-approved emission factors or stack test results. | Daily and Monthly | 40 CFR 70.6 (a)(3)(i)(B) |
| 41. | SRCC | Opacity | PSNH shall conduct the visible emission test using US EPA Method 22 only when the coal crusher is operating. | Monthly | Env-A 807.05 (new) and State Permit to Operate No. PO-BP-2688 |
| 42. | SRCC | Coal Throughput | PSNH shall maintain records of the quarterly coal received and coal burned. | Quarterly | 40 CFR 70.6 (a)(3)(i)(B) and State Permit to |

| Table 8 – Monitoring/Testing Requirements | | | | | |
|---|---|---|---|---|---|
| **Item No.** | **Device** | **Parameter** | **Method of Compliance** | **Frequency of Method** | **Regulatory Cite** |
| | | | | | Operate No. PO-BP-2688 |
| 43. | Facility wide | Fuel Flow Meters-Periodic Monitoring | PSNH shall ensure that the fuel flow metering devices are calibrated at a frequency in accordance with manufacturer's specifications and following manufacturer's recommended procedures. This calibration shall occur at least once annually or in a manner and/or frequency approved by the Division. Manufacturer's specifications/procedures shall be kept on file and made available to DES and/or EPA upon request. | According to manufacturer's specification or annually, whichever is more frequent | 40 CFR 70.6 (a)(3)(i)(B) |
| 44. | SR4, SR5, SR6 | CEM Hourly Operating Requirements & Valid Hour of CEM Data | Pursuant to Env-A 40 CFR 75.10(d), the Permittee shall ensure that the CEMS and components meet the following hourly operating requirements:<br>A) The Permittee shall ensure that each CEM is capable of completing a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute interval pursuant to Env-A 40 CFR 75.10(d) and pursuant to Env-A 808.03(c)(2) for each successive 5-minute period for gaseous emissions, unless a longer time period is approved in accordance with Env-A 809<br>B) The Permittee shall reduce all $SO_2$ concentrations, volumetric flow, $SO_2$ mass emissions, $CO_2$ concentration, $CO_2$ mass emissions (if applicable), NOx concentration, and NOx emission rate data collected by the monitors to hourly averages.<br>C) The Permittee shall use all valid measurements or data points collected during an hour to calculate the hourly averages. All data points collected during an hour shall be, to the extent practicable, evenly spaced over the hour.<br>D) Failure of an $SO_2$ or $CO_2$ pollutant concentration monitor, NOx concentration | Hourly | 40 CFR 75.10(d) and Env-A 808.01(i) and 808.03 |

[17] The requirements of 40 CFR 75 are less stringent than Env-A 808. 40 CFR 75 requires hourly averages to be computed using at least one data point in each fifteen-minute quadrant of an hour, where the unit combusted fuel during that quadrant of an hour. 40 CFR 75 allows an hourly average to be computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour) if data are unavailable as a result of the performance of calibration, quality assurance, or preventive maintenance activities pursuant to 40 CFR 75.21 and 40 CFR Appendix B or backups of data from the data acquisition and handling system, or recertification, pursuant to 40 CFR 75.20.

| Table 8 – Monitoring/Testing Requirements | | | | | |
|---|---|---|---|---|---|
| **Item No.** | **Device** | **Parameter** | **Method of Compliance** | **Frequency of Method** | **Regulatory Cite** |
| | | | monitor, flow monitor, or NOx-diluent CEMS to acquire the minimum number of data points for calculation of an hourly average shall result in the failure to obtain a valid hour of data and the loss of such component data for the entire hour.<br>E) For a NOx-diluent monitoring system, an hourly average NOx emission rate in lb/mmBtu is valid only if the minimum number of data points is acquired by both the NOx pollutant concentration monitor and the diluent monitor ($CO_2$).<br>F) If a valid hour of data is not obtained, the Permittee shall estimate and record emissions, moisture, or flow data for the missing hour by means of the automated data acquisition and handling system, in accordance with the applicable procedure for missing data.<br>G) Pursuant to Env-A 808.01(i), a valid hour of CEM emissions data means a minimum of 42 minutes of CEM readings taken in any calendar hour, during which the CEM is not in an out of control period and the facility is in operation.[17]<br>H) Pursuant to Env-A 808.03(a), PSNH shall average and record the CEM data for gaseous emissions for each calendar hour.<br>I) Pursuant to Env-A 808.03(c)(1), all CEM systems shall include a means to display instantaneous values of percent opacity and gaseous emission concentrations. | | |
| 45. | SR4, SR5, SR6 | Stack Volumetric Flow Measuring Device | PSNH shall meet the following requirements for the stack volumetric flow measuring device:<br>A) All differential pressure flow monitors shall have an automatic blow-back purge system installed and in wet conditions, shall have the capability for drainage of the sensing lines; and<br>B) The stack flow monitoring system shall have the capability for manual calibration of the transducer while the system is on-line and for a zero check. | Continuously | Env-A 808.03(d) |
| 46. | SR4, SR5, SR6 | Minimum Measurement Capability Requirements | The Permittee shall ensure that each CEMS is capable of accurately measuring, recording, and reporting data, and shall not incur an exceedance of the full scale range, except as | As specified by regulation | 40 CFR 75.10(f) |

| Table 8 – Monitoring/Testing Requirements | | | | | |
|---|---|---|---|---|---|
| **Item No.** | **Device** | **Parameter** | **Method of Compliance** | **Frequency of Method** | **Regulatory Cite** |
| | | for CEMS | provided in 40 CFR 75 Appendix A Sections 2.1.1.5, 2.1.2.5, and 2.1.4.5. | | |
| 47. | SR4, SR5, SR6 | COMS Hourly Operating Requirements | Pursuant to 40 CFR 75.10(d), the Permittee shall ensure that each COMS and components meet the following hourly operating requirements:<br>A) The Permittee shall ensure that each continuous opacity monitoring system is capable of completing a minimum of one cycle of sampling and analyzing (and recording pursuant to Env-A 808.03(c)(2) unless a longer time period is approved in accordance with Env-A 809) for each successive 10-second period and one cycle of data recording for each successive 6-minute period.<br>B) The Permittee shall reduce all opacity data to 6-minute averages calculated in accordance with the provisions of 40 CFR 51 Appendix M, except where the SIP or operating permit requires a different averaging period, in which case the State requirement shall satisfy this Acid Rain Program requirement as shown below.<br>C) Pursuant to Env-A 808.03(b)(1), PSNH shall average the opacity data to result in consecutive, non-overlapping 6-minute averages; and<br>D) Pursuant to Env-A 808.03(b)(2), for units subject to the Env-A 2003.04(b) exemption, the total number of minutes in any 8-hour period where the opacity, as averaged in non-overlapping 6-minute periods, exceeds the applicable opacity standard.<br>E) Pursuant to Env-A 808.03(c)(1), all CEM systems shall include a means to display instantaneous values of percent opacity and gaseous emission concentrations. | Sampling for successive 10-second period and recording for successive 6-minute period | 40 CFR 75.10(d) and Env-A 808.03(b) and (c) |
| 48. | SR4, SR5, SR6 | Specific Provisions for Monitoring $SO_2$ Emissions ($SO_2$ emissions and flow monitors) | Pursuant to 40 CFR 75.11, the Permittee shall meet the specific provisions for $SO_2$ CEMS and flow monitoring systems: PSNH shall meet the general operating requirements in 40 CFR 75.10 for an $SO_2$ continuous emission monitoring system and a flow monitoring system. | As specified by regulations | 40 CFR 75.11 |

| Table 8 – Monitoring/Testing Requirements | | | | | |
|---|---|---|---|---|---|
| **Item No.** | **Device** | **Parameter** | **Method of Compliance** | **Frequency of Method** | **Regulatory Cite** |
| 49. | SR4, SR5, SR6 | Specific Provisions for Monitoring NOx Emissions | A) Pursuant to 40 CFR 75.12, 75.71, and 75.72 and Env-A 3212, the Permittee shall meet the specific provisions for NOx-diluent CEMS, including the following:<br>1) Meet general operating requirements in 40 CFR 75.10 for a NOx continuous emission monitoring system. The diluent gas monitor in the NOx CEMS may measure either $O_2$ or $CO_2$ concentration in the flue gases.<br>2) Comply with moisture correction procedures according to 40 CFR 75.12(b)<br>3) Comply with NOx emission rate procedures contained in 40 CFR 75.12(c).<br>B) The Permittee shall meet the annual and ozone season monitoring requirements according to 40 CFR 75.74, as applicable. | Continuously | 40 CFR 75.12, 75.71, and 75.72 and Env-A 3212 |
| 50. | SRCT | NOx Mass Emissions - Specific Provisions for Monitoring NOx Emissions for Alternative Monitoring System | PSNH shall meet the requirements of 40 CFR 75.12 including using the procedures of 40 CFR 75 Appendix E for estimating hourly NOx emission rate, using the procedures of 40 CFR Appendix D for determining hourly heat input, except for the heat input apportionment provisions of 40 CFR 75 Appendix D Section 2.1.2 to meet the NOx mass reporting provisions. If in the years after certification of the monitoring system, a unit's operation exceed a capacity factor of 20 percent in any calendar year or exceed a capacity factor of 10.0 percent averaged over three years, or exceed a capacity factor of 20.0 percent in any ozone season or exceed an ozone season capacity factor of 10.0 percent averaged over three years, PSNH shall install, certify, and operate a NOx CEMS and also meet the requirements of 40 CFR 75.71(c) no later than December 31 of the following calendar year. | Hourly | 40 CFR 75 Appendix E Section 1.1 and 40 CFR 75.12(d)(2) and 75.71(d) |
| 51. | SR4, SR5, SR6 | Specific Provisions for Monitoring $CO_2$ Emissions | Pursuant to 40 CFR 75.13, the Permittee shall meet the specific provisions for $CO_2$ CEMS and flow monitoring systems. | Continously | 40 CFR 75.13 |
| 52. | SR4, SR5, SR6 | Specific Provisions for Monitoring | Pursuant to 40 CFR 75.14, the continuous opacity monitoring and recording system shall meet all the design, installation, | Continuously | 40 CFR 75.14 and Env-A 808 (new) |

| Table 8 – Monitoring/Testing Requirements | | | | | |
|---|---|---|---|---|---|
| **Item No.** | **Device** | **Parameter** | **Method of Compliance** | **Frequency of Method** | **Regulatory Cite** |
| | | Opacity | equipment, and performance specifications of 40 CFR 60 Appendix B, Performance Specification 1, and all the operational and quality assurance requirements of Env-A 808 (new). | | |
| 53. | SR4, SR5, SR6, SRCT | CEMS and COMS and Alternative Monitoring Certification | Pursuant to 40 CFR 75.20 and 40 CFR 75.70(d) and Env-A 3212.07 and Env-A 3212.10, the Permittee shall recertify the CEMS and COMS and alternative monitoring system whenever the Permittee makes a replacement, modification, or change to the systems or to the facility that could significantly affect the ability of the systems to accurately measure and record the requisite data. The Permittee must submit an application for recertification of the monitoring system to EPA and DES, except pursuant to Env-A 3212.11, notifications for SRCT shall only be sent to DES. | Whenever the Permittee makes a replacement, modification, or change to the systems or to the facility that could significantly affect the ability of the systems to accurately measure and record the requisite data | 40 CFR 75.20, 40 CFR 75.70(d), and 40 CFR 75 Appendix E Section 1.2 and Env-A 3212.07, 3212.09, 3212.10 and 2910.04 |
| 54. | SR4, SR5, SR6 | QA/QC Requirements | A) Pursuant to 40 CFR 75.21 (a)(1) and 40 CFR 75.70, the Permittee shall operate, maintain, and calibrate each CEMS according to the quality assurance and quality control procedures in 40 CFR 75 Appendix B.<br>B) Pursuant to 40 CFR 75.21(b), the Permittee shall operate, calibrate, and maintain each COMS according to the procedures specified in the SIP, pursuant to 40 CFR 51 Appendix M.<br>C) Pursuant to 40 CFR 75.21(c), the Permittee shall ensure that all calibration gases used to quality assure the operation of the instrumentation shall meet the definition in 40 CFR 72.2.<br>D) Pursuant to 40 CFR 75.21(d) and (e), the Permittee shall comply with the provisions concerning consequences of audits and audit decertification.<br>E) Within and prior to the ozone season, the Permittee shall meet the quality assurance requirements contained in 40 CFR 75.74, as applicable. | As specified by regulation | 40 CFR 75.21 and 75.70 and 75.74 |
| 55. | SRCT | QA/QC Requirements | PSNH shall comply with the QA/QC procedures of 40 CFR 75 Appendix E and 40 | Annually or ozone season | 40 CFR 75.70(e) and 40 |

| Table 8 – Monitoring/Testing Requirements | | | | | |
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| **Item No.** | **Device** | **Parameter** | **Method of Compliance** | **Frequency of Method** | **Regulatory Cite** |
| | | for Alternative Monitoring System | CFR 75.74(c), as applicable. Pursuant to 40 CFR 75.74(b), PSNH may choose whether to meet the QA/QC requirements on an annual basis or an ozone season basis. | basis | CFR 75 Appendix E and 40 CFR 75.74(b) and (c) |
| 56. | SR4, SR5, SR6, SRCT | Reference Test Methods for Certification and Recertification of CEMS or COMS | The Permittee shall use the reference test methods listed in 40 CFR 75.22 and included in Appendix A to 40 CFR 60 to conduct monitoring system tests for certification or recertification of CEMS and excepted monitoring systems under 40 CFR 75 Appendix E and quality assurance and quality control procedures. | During certification or recertification tests | 40 CFR 75.22 |
| 57. | SR4, SR5, SR6 | Out-of-Control Periods | A) Pursuant to 40 CFR 75.21(e)(2), whenever a CEMS or COMS fails a quality assurance audit or any other audit, the system is out-of-control, and the Permittee shall follow the procedures for out-of-control periods in 40 CFR 75.24.<br>B) Pursuant to Env-A 3212.10 and 2910.06, whenever any monitoring system fails to meet the quality assurance requirements of 40 CFR 75 Appendix B, PSNH shall substitute the data using the applicable procedures in 40 CFR 75, Subpart D, Appendix D or E.<br>C) Pursuant to 75.24, if an out-of-control period occurs to a monitor or CEMS, the owner or operator shall take corrective action and repeat the tests applicable to the out of control parameter as described in 40 CFR 75 Appendix B.<br>1) For daily calibration error tests, an out of control period occurs when the calibration error of a pollutant concentration monitor exceeds 5.0% based upon the span value, the calibration error of a diluent gas monitor exceeds 1.0% $O_2$ or $CO_2$, or the calibration error of a flow monitor exceeds 6.0% based upon the span value, which is twice the applicable specification in 40 CFR 75 Appendix A.<br>2) For quarterly linearity checks, an out of control period occurs when the error in linearity at any of the three gas concentrations (low, mid-range, and | As specified by regulation | 40 CFR 75.21(e)(2) and 75.24 and Env-A 3212.10 and 2910.06 and 808.01(g) |

| Table 8 – Monitoring/Testing Requirements | | | | | |
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| **Item No.** | **Device** | **Parameter** | **Method of Compliance** | **Frequency of Method** | **Regulatory Cite** |
| | | | high) exceeds the applicable specification in 40 CFR 75 Appendix A.<br>3) For relative accuracy test audits (RATAs), cylinder gas audit (CGAs), and relative accuracy audits (RAAs), an out of control period occurs when the sampling is completed and the CEMS fails the accuracy criteria until successful completion of the same audit after corrective action has occurred.<br>D) Pursuant to Env-A 3212.10, whenever both an audit of a monitoring system and a review of the initial certification or recertification application reveal that any system or component should not have been certified or recertified because it did not meet a particular performance specification or other requirement pursuant to Env-A 800 or the applicable provisions of 40 CFR Part 75, both at the time of the initial certification or recertification application submission and at the time of the audit, the department shall issue a notice of disapproval of the certification status of such system or component.<br>E) For the purposes of this section, an audit shall be either a field audit or an audit of any information submitted to the department or the administrator.<br>F) The data measured and recorded by the system or component shall not be considered valid quality-assured data from the date of issuance of the notification of the disapproval of certification status until the date and time that the owner or operator completes subsequently approved initial certification or recertification tests in accordance with Env-A 3212.07(t).<br>G) The owner or operator shall follow the initial certification or recertification procedures for each disapproved system. | | |
| 58. | SR4, SR5, SR6 | Out of Control Periods for Opacity | Out of control period for a CEMS measuring opacity is as follows:<br>A) The time period beginning with the completion of the daily calibration drift check where the CD exceeds 2% opacity for 5 consecutive days, and ending with the CD | As specified by regulation | Env-A 808.01(g)(2) |

| Table 8 – Monitoring/Testing Requirements | | | | | |
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| **Item No.** | **Device** | **Parameter** | **Method of Compliance** | **Frequency of Method** | **Regulatory Cite** |
| | | | check after corrective action has occurred that results in the performance specification drift limits being met;<br>B) The time period beginning with the completion of a daily CD check preceding the daily CD check that results in the CD being greater than 5% opacity and ending with the CD check after corrective action has occurred that results in the performance specification drift limits being met; or<br>C) The time period beginning with the completion of a quarterly opacity audit where the CEMS fails the calibration error test as specified in 40 CFR 60, Appendix B, Specification 1 and ending with successful completion of the same audit where the CEMS passes the calibration error test established after corrective action has occurred. | | |
| 59. | SR4, SR5, SR6, SRCT | Data Availability and Missing Data Substitution Procedures | A) The Permittee shall follow the procedures in 40 CFR 75.30 through 75.37, 75.70(f), 75.74, and 40 CFR 75 Appendix E when a valid, quality-assured hour of data is not measured or recorded.<br>B) For SRCT, the Permittee shall provide substitute data pursuant to 40 CFR 75.74 and 40 CFR 75 Appendix E Section 2.5, when the QA/QC control parameters are exceeded or missing.<br>C) Pursuant to Env-A 808.02(c)(2), PSNH shall comply with the minimum percentage data availablity requirements pursuant to Env-A 808.10(a)-(d) to meet the requirements of Env-A 3200, *NOx Budget Program*.<br>D) Pursuant to Env-A 808.10, if PSNH cannot meet the percentage data availability requirements, PSNH shall also follow the provisions of Env-A 808.10(e) – (g).<br>E) Pursuant to 40 CFR 75.24(e), if COMS is out of control, PSNH shall follow the data availability requirements of Env-A 808.10. | As specified by regulation | 40 CFR 75.30 through 75.37 and 75.50(f) and 75.24(e) and 75.74 and 40 CFR 75 Appendix E Section 2.5 and Env-A 808.10 and 808.02(c)(2) |
| 60. | SR4, SR5, SR6 | General CEM Requirements | A) Pursuant to 40 CFR 75.5 (b), the Permittee must operate SR4, SR5, and SR6 in compliance with the requirements of 40 CFR 75.2 through 75.75 and 40 CFR 75 Appendices A through G.<br>B) Pursuant to 40 CFR 75.5 (d), the Permittee | Continuously | 40 CFR 75.5 and Env-A 808 (new) |

| Table 8 – Monitoring/Testing Requirements | | | | | |
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| **Item No.** | **Device** | **Parameter** | **Method of Compliance** | **Frequency of Method** | **Regulatory Cite** |
| | | | shall account for all emissions of $SO_2$, NOx, and $CO_2$ in accordance with 40 CFR 75.10 through 7519.<br>C) Pursuant to 40 CFR 75.5 (e), the Permittee shall not disrupt the continuous emission monitoring system or other approved emission monitoring method, and thereby not monitor or record $SO_2$, NOx, and $CO_2$, except for periods of recertification, or periods when calibration, quality assurance, or maintenance is performed pursuant to 40 CFR 75.21 and 40 CFR 75 Appendix B.<br>D) The CEMS shall meet the most stringent requirements of 40 CFR 75 and Env-A 808 (new). | | |
| 61. | SR4, SR5, SR6 | CEMS Performance and Audit Requirements | The Permittee shall ensure that each CEMS meets the following requirements:<br>A) Each CEMS meets equipment, installation, and performance specifications in 40 CFR 75 Appendix A;<br>B) Each CEMS is maintained according to the quality assurance and quality control procedures in 40 CFR 75 Appendix B; and<br>C) Each CEMS shall record $SO_2$ and NOx emissions in the appropriate units of measurement.<br>D) PSNH shall comply with the most stringent CEM audit requirements contained in 40 CFR 75 and Env-A 808.07, *General Audit Requirements*, Env-A 808.08, *Audit Requirements for Gaseous CEM Systems*, and Env-A 808.09, *Audit Requirements for Opacity CEM Systems*. | As specified by regulation | 40 CFR 75.10(b) and Env-A 808.07, 808.08, and 808.09 and 40 CFR 75 Appendices A and B |
| 62. | SR4, SR5, SR6, SRCT | NOx Mass Emissions – General Provisions | A) Pursuant to Env-A 3200, *NOx Budget Program,* PSNH shall comply with the provisions of 40 CFR 75 Subparts A, C, D, E, F, and G and Appendices A through G applicable to NOx concentration, flow rate, NOx emission rate and heat input, as set forth and referenced in Subpart H.<br>B) The requirements of Subpart H for CO2, SO2, opacity monitoring, recordkeeping, and reporting do not apply to units that are subject to a State or federal NOx mass emission reduction program only and are not affected units with an Acid Rain Program emission limitation (i.e., SRCT**).** | As specified by regulation | Env-3212.01 and 40 CFR 75.70(a) |
| 63. | SR4, SR5, | NOx Mass | PSNH is prohibited from the following: | Continuously | 40 CFR |

| Table 8 – Monitoring/Testing Requirements | | | | | |
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| **Item No.** | **Device** | **Parameter** | **Method of Compliance** | **Frequency of Method** | **Regulatory Cite** |
| | SR6, SRCT | Emissions Provisions-Prohibitions | A) Using alternative monitoring system, reference method, or any other alternative for the required CEMS without approval through petition process in 40 CFR 75.70(h).<br>B) Discharging or allowing discharge of NOx emissions without accounting for all emissions in accordance with the provisions of Subpart H, except as provided in 40 CFR 75.74.<br>C) Disrupting the CEMS or any other approved emission monitoring method, and thereby avoid monitoring and recording NOx mass emissions, except for periods of re-certification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the provisions of 40 CFR 75 Subpart H applicable to the monitoring systems under 40 CFR 75.71, except as provided in 40 CFR 75.74.<br>D) Retiring or permanently discontinuing the use of the CEMS, or any other approved emission monitoring system except under one of the following circumstances:<br>1) During a period that the unit is covered by a retired unit exemption that is in effect under the State or federal NOx mass emission reduction program that adopts the requirements of Subpart H;<br>2) The owner or operator is monitoring NOx emissions from the affected unit with another certified monitoring system approved, in accordance with the provisions of 40 CFR 75.70(d); or<br>3) The designated representative submits notification of the date of certification testing of a replacement monitoring system in accordance with 40 CFR 75.61. | | 75.70(c) |
| 64. | SR4, SR5, SR6, SRCT | NOx Mass Emissions – Petitions for Alternatives | PSNH may submit a petition to DES and EPA requesting an alternative to any requirement of 40 CFR 75 Subpart H. Such a petition shall meet the requirements of 40 CFR 75.66 and any additional requirements established by Env-A 3200 or other applicable state or Federal NOx mass emission reduction programs that adopt the requirements of 40 CFR 75 Subpart H. | Not applicable | 40 CFR 75.70(h) and 40 CFR 75 Subpart E and 40 CFR 75 Appendix E and Env-A 3212.09 |

| Table 8 – Monitoring/Testing Requirements | | | | | |
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| **Item No.** | **Device** | **Parameter** | **Method of Compliance** | **Frequency of Method** | **Regulatory Cite** |
| | | | Pursuant to 40 CFR 75.50(h)(3)(i) and Env-A 3212.09, PSNH petitioned to DES and EPA requesting an alternative to the continuous emission monitoring for NOx emissions for SRCT. | | |
| 65. | SRCT | NOx Mass Emissions-Alternative Monitoring System | PSNH shall comply with the provisions of 40 CFR 75 Appendix E and Env-A 3212.09 as an alternative to continuous emission monitoring system requirements. | During the ozone season | 40 CFR 75 Appendix E and Env-A 3212.09 |
| 66. | SRCT | NOx Mass Emissions – NOx Emission Rate and Heat Input – Peaking Units | For an affected unit that qualifies as a peaking unit and as either gas-fired or oil-fired, PSNH shall either:<br>A) Meet the requirements of 40 CFR 75.71(c); or<br>B) Use the procedures in 40 CFR 75 Appendix D for determining hourly heat input and the procedure specified in 40 CFR 75 Appendix E for estimating hourly NOx emission rate. The heat input apportionment provisions in Section 2.1.2 of 40 CFR 75 Appendix D shall not be used to meet the NOx mass reporting provisions of 40 CFR 75 Subpart H. In addition, if after certification of an excepted monitoring system under 40 CFR 75 Appendix E, the operation of a unit that reports emissions on an annual basis under 40 CFR 75.74(a) exceeds a capacity factor of 20.0 percent in any calendar year or exceeds an annual capacity factor of 10.0 percent averaged over 3 years, or the operation of a unit that reports emissions on an ozone season basis under 40 CFR 75.74(b) exceeds a capacity factor of 20.0 percent in any ozone season or exceeds an ozone season capacity factor of 10.0 percent averaged over three years, the owner or operator shall meet the requirements of 40 CFR 75.71(c) or, if applicable 40 CFR 75.71(e) by no later than December 31 of the following calendar year. | As specified by regulation | 40 CFR 75.71(d) |
| 67. | SR4, SR5, SR6, SRCT | NOx Mass Emissions – Annual Monitoring | PSNH shall meet the requirements of 40 CFR 75 Subpart H during the entire calendar year for SR4, SR5, and SR6 and on an ozone season basis except as specified for SRCT. | During the calendar year for SR4, SR5, and SR6 and during the ozone season | 40 CFR 75.74(a) and (b) |

| Table 8 – Monitoring/Testing Requirements | | | | | |
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| **Item No.** | **Device** | **Parameter** | **Method of Compliance** | **Frequency of Method** | **Regulatory Cite** |
| | | | | for SRCT | |
| 68. | SR4, SR5, SR6 | Valid Averaging Periods for Gaseous and Opacity CEMS | The number of hours of valid CEM and COM data required for determining a valid averaging period for the different emission standard periods shall be:<br>A) For a 3-hour emission standard period, 2 hours of valid data;<br>B) For a 4-hour emission standard period, 3 hours of valid data;<br>C) For an 8-hour emission standard period, 6 hours of valid data;<br>D) For a 12-hour emission standard period, 9 hours of valid data, and<br>E) For a 24-hour emission standard period, 18 hours of valid data. | As specified by regulation | Env-A 808.14 |
| 69. | Facility wide | Inventories of Regulated Substances | PSNH shall monitor the quantity of regulated substances to ensure that the inventories are maintained below the threshold quantities established by 40 CFR 68.130. | Continuously | 40 CFR 68 and 1990 CAA Section 112(r)(1) |

## I. Recordkeeping Requirements

The Permittee is subject to the Recordkeeping requirements as contained in Table 9 below:

| Table 9 – Applicable Recordkeeping Requirements[18] | | | | |
|---|---|---|---|---|
| **Item No.** | **Recordkeeping Requirement** | **Frequency of Recordkeeping** | **Applicable Emission Unit** | **Regulatory Cite** |
| 1. | Solid Fuel Utilization Records: The Permittee shall maintain the following monthly records, or records for an alternative period as approved by DES in accordance with Env-A 912, of the bituminous coal characteristics and utilization:<br><br>A) Fuel consumption;<br>B) Fuel type;<br>C) Ash content;<br>D) Sulfur content as percent sulfur by weight of fuel and pounds per million BTU gross heat content; and | Monthly and 12 Month Rolling Average or an alternative period as approved by DES in accordance with Env-A 912 | SR4, SR5, SR6 | Env-A 901.03(a)(2)(old) and Env-A 903.03(a)(1) (new) |

[18] On April 23, 1999 DES promulgated new Env-A 900 rules to streamline the recordkeeping and reporting requirement sections of the New Hampshire Code of Administrative Rules. Until such time that the new Env-A 900 rules are approved and adopted into the State Implementation Plan (SIP) by EPA, all Title V permits will be incorporating the old Env-A 900 rules (which became effective on November 11, 1992), unless the new Env-A 900 rules are more stringent. These recordkeeping and reporting requirements shall fall under the Permit Shield provisions as contained in Section XIII of this permit.

| Table 9 – Applicable Recordkeeping Requirements[18] | | | | |
|---|---|---|---|---|
| **Item No.** | **Recordkeeping Requirement** | **Frequency of Recordkeeping** | **Applicable Emission Unit** | **Regulatory Cite** |
| | E) BTU content per pound of fuel. | | | |
| 2. | Liquid Fuel Utilization Records: The Permittee shall maintain the following monthly records, or records for an alternative period as approved by DES in accordance with Env-A 912, of the liquid fuel characteristics and utilization:<br>A) Fuel consumption;<br>B) Fuel type;<br>C) Viscosity;<br>D) Sulfur content as percent sulfur by weight of fuel;<br>E) BTU content per gallon of fuel; and<br>F) Hours of operation of each fuel combustion device while operating with each type of liquid fuel, so the distribution of fuel among each combustion device can be estimated. | Monthly and Consecutive 12-Month Rolling Average or an alternative period as approved by DES in accordance with Env-A 912 | SR4, SR5, SR6, SRCT | Env-A 901.03(a)(1) and (c) (old) and Env-A 903.03(a)(3) and (b) (new) |
| 3. | Gaseous Fuel Utilization Records: The Permittee shall maintain the following monthly records, or records for an alternative period as approved by DES in accordance with Env-A 912, of the liquid fuel characteristics and utilization:<br>A) Fuel consumption;<br>B) Fuel type;<br>C) Sulfur content as percent sulfur by weight of fuel or in grains per 100 cubic feet of fuel;<br>D) Hours of operation of each fuel combustion device while operating with each type of gaseous fuel, so the distribution of fuel among each combustion device can be estimated. | Monthly and Consecutive 12-Month Rolling Average | SR4, SR5, SR6, SRCT, SREG | Env-A 903.03(a)(4) (new) |
| 4. | Monitoring Plan and QA/QC Plan:<br>A) The Permittee shall prepare and maintain a monitoring plan for the CEMS and COMS, which contains sufficient information to demonstrate that all unit $SO_2$ emissions, NOx emissions, $CO_2$ emissions and opacity are monitored and reported.<br>B) The Permitte shall prepare and maintain monitoring plans for other approved monitoring methods, which contain sufficient information to demonstrate that all unit NOx emissions are monitored and reported.<br>C) The Permittee shall update the monitoring plan whenever the Permittee makes a | Whenever a change occurs that could affect monitoring method or annually, whichever is more frequent | SR4, SR5, SR6, SRCT | 40 CFR 75.53 (a), (b), (e), and (f) and 75.73(c) and Env-A 808.06 and 3212.13 and 2910.09 |

| Table 9 – Applicable Recordkeeping Requirements[18] | | | | |
|---|---|---|---|---|
| **Item No.** | **Recordkeeping Requirement** | **Frequency of Recordkeeping** | **Applicable Emission Unit** | **Regulatory Cite** |
| | replacement, modification or change that could affect the CEMS or COMS or other approved monitoring method.<br>D) The Permittee shall review the QA/QC plan and all data generated by its implementation at least once each year.<br>E) The Permittee shall revise or update the QA/QC plan, as necessary, based on the results of the annual review by conducting the following:<br>1) Documenting any changes made to the CEM or the monitoring method or changes to any information provided in the monitoring plan;<br>2) Including a schedule of, and describing, all maintenance activities that are required by the CEM manufacturer or that might have an effect on the operation of the system;<br>3) Describing how the audits and testing required by this part will be performed; and<br>4) Including examples of the reports that will be used to document the audits and tests required by this part;<br>5) Make the revised QA/QC plan available for on-site review by the division at any time; and<br>6) Within 30 days of completion of the annual QA/QC plan review, certify in writing that the owner or operator will continue to implement the source's existing QA/QC plan or submit in writing any changes to the plan and the reasons for each change.<br>F) The QA/QC plan shall be considered an update to the CEM monitoring plan required by Env-A 808.04.<br>G) Pursuant to Env-A 3212.13(a) and Env-A 2910.09, the units subject to acid rain emission limitations (SR4, SR5, SR6) shall comply with the requirements of 40 CFR 75.62, except the monitoring plan shall also include all of the information required by 40 CFR 75, Subpart H.<br>H) Pursuant to Env-A 3212.13(b), a unit not subject to acid rain emission limitations (SRCT) shall comply with the requirements of 40 CFR 75.62, except the | | | |

| Table 9 – Applicable Recordkeeping Requirements[18] | | | | |
|---|---|---|---|---|
| **Item No.** | **Recordkeeping Requirement** | **Frequency of Recordkeeping** | **Applicable Emission Unit** | **Regulatory Cite** |
| | monitoring plan shall only include the information required by 40 CFR 75, Subpart H.<br>I) Pursuant to 40 CFR 75.73(c)(3), the monitoring plan for a unit not subject to acid rain emission limitations (SRCT) shall include the provisions of 40 CFR 75.53(e)(1), 75.53(f)(1)(i), (f)(2)(i), and (f)(4) in electronic format and 40 CFR 75.53(e)(2), 75.53(f)(1)(ii), and (f)(2)(ii) in hardcopy format. | | | |
| 5. | <u>CEM, COMS and Other Approved Monitoring Methods Recordkeeping Requirements:</u><br>A) The Permittee shall record and maintain the information required pursuant to 40 CFR 75.57, 75.58, 75.59, and 75.73(b), which includes the certification, quality assurance, and quality control records.<br>B) The Permittee shall record and maintain CEMS and COMS records according to the most stringent requirements of Env-A 808 and 40 CFR 75. | As specified by regulation | SR4, SR5, SR6, SRCT | 40 CFR 75.57, 75.58,75.59, and 75.73 and Env-A 3212 and Env-A 903.04 (a) (new) and Env-A 800 and 40 CFR 75 |
| 6. | <u>General NOx Recordkeeping Requirements:</u><br>The Permittee shall record and maintain the following information for fuel burning devices:<br>A) Facility information, including the following:<br>1) Source name;<br>2) Source identification;<br>3) Physical address; and<br>4) Mailing address.<br>B) Identification of fuel burning devices;<br>C) Operating schedule for each fuel burning device identified in Condition B) above:<br>1) Days per calendar week during the normal operating schedule;<br>2) Hours per day during the normal operating schedule and for a typical ozone season day; and<br>3) Hours per year during the normal operating schedule.<br>D) Type and amount of fuel burned for each fuel-burning device during normal operating conditions and for a typical ozone season day, if different from normal operating conditions, on an hourly basis in mmBtu/hr.<br>E) Theoretical potential NOx emissions for the calculation year for each fuel burning | Annually and as applicable | SR4, SR5, SR6, SRCT, SREG | Env-A 901.08 (c) (1)–(5) (old) and Env-A 905.02 (new) |

| Table 9 – Applicable Recordkeeping Requirements[18] | | | | |
|---|---|---|---|---|
| **Item No.** | **Recordkeeping Requirement** | **Frequency of Recordkeeping** | **Applicable Emission Unit** | **Regulatory Cite** |
| | device:<br>1) Annual emissions, in tons per year; and<br>2) Typical ozone season day emissions, in pounds per day.<br>F) Actual NOx emissions for each fuel burning device:<br>1) Annual emissions, in tons per year; and<br>2) Typical ozone season day emissions, in pounds per day.<br>G) Emission factors and the origin of the emission factors used to calculate the NOx emissions. | | | |
| 7. | Recordkeeping Requirements for Add-On NOx Control Equipment: The Permittee shall record and maintain the following information:<br>A) Air pollution control device identification number, type, model number, and manufacturer;<br>B) Installation date;<br>C) Unit(s) controlled;<br>D) Type and location of the capture system, capture efficiency percent, and method of determination;<br>E) Information as to whether the air pollution control device is always in operation when the fuel burning device it is serving is in operation;<br>F) Destruction or removal efficiency of the air pollution control equipment, including the following information:<br>1) Destruction or removal efficiency, in percent;<br>2) Current primary and secondary equipment control information codes;<br>3) Date tested; and<br>4) Method of determining destruction or removal efficiency, if not tested.<br>G) Emission test results, including inlet NOx concentration (ppm), outlet NOx concentration (ppm), method of concentration determination, and date of determination; and<br>H) Type and location of the capture system, capture efficiency percent and method of determination. | Maintain at the facility at all times | SR4, SR5, SR6 | Env-A 901.08(c)(6) (old) and Env-A 905.03 (new) |
| 8. | Sulfur Analysis Records for Fuel Oil: PSNH shall maintain delivery tickets from each fuel | For each delivery of fuel oil | SR4, SR5, SR6, SRCT | Env-A 806.05 (new) and 40 CFR |

| Table 9 – Applicable Recordkeeping Requirements[18] | | | | |
|---|---|---|---|---|
| **Item No.** | **Recordkeeping Requirement** | **Frequency of Recordkeeping** | **Applicable Emission Unit** | **Regulatory Cite** |
| | oil supplier for each shipment of fuel oil received. The delivery tickets shall be in a form suitable for inspection and available to the DES and/or EPA upon request. Each delivery ticket shall indicate the following:<br>I) The name of the fuel supplier;<br>J) The address of the fuel supplier;<br>K) The telephone number of the fuel supplier;<br>L) The type of fuel delivered;<br>M) The quantity of fuel oil delivered;<br>N) The date of delivery; and<br>O) The maximum percent sulfur by weight of the fuel oil delivered.<br>If the delivery tickets do not contain sulfur content of fuel delivered, the Permittee shall provide other documentation from the fuel supplier with the above information or perform testing in accordance with appropriate ASTM test methods to determine compliance with the sulfur content limitation provisions in Env-A 1604 for liquid fuels. | | | 70.6(a)(3) |
| 9. | Delivery Ticket and Sulfur Analysis Records for Coal: PSNH shall maintain delivery tickets from each coal supplier for each shipment of coal received. The delivery tickets shall be in a form suitable for inspection and available to the DES and/or EPA upon request. Each delivery ticket shall indicate the following:<br>A) The name of the fuel supplier;<br>B) The address of the fuel supplier;<br>C) The telephone number of the fuel supplier;<br>D) The type of fuel delivered;<br>E) The quantity of coal delivered;<br>F) The date of delivery;<br>G) The maximum percent sulfur by weight of the coal delivered or the lb sulfur/MMBtu of coal;<br>H) Identification of the mine from which the coal originated;<br>I) The weight percent ash content of the coal; and<br>J) The gross heat content of the coal (Btus per pound).<br>If the delivery tickets do not contain sulfur content of fuel delivered, the Permittee shall provide other documentation from the fuel supplier with the above information or perform testing in accordance with appropriate ASTM test methods to determine compliance with the | For each delivery of coal | SR4, SR5, SR6 | Env-A 806.05 (new), State Permits to Operate Nos. PO-B-1629, PO-B-1630, and PO-B-1631, and 40 CFR 70.6(a)(3) |

| Table 9 – Applicable Recordkeeping Requirements[18] | | | | |
|---|---|---|---|---|
| **Item No.** | **Recordkeeping Requirement** | **Frequency of Recordkeeping** | **Applicable Emission Unit** | **Regulatory Cite** |
| | sulfur content limitation provisions in Env-A 1606 for solid fuels. | | | |
| 10. | Delivery Ticket and Sulfur Analysis Records for Propane: PSNH shall maintain delivery tickets from each propane supplier for each shipment of propane received. The delivery tickets shall be in a form suitable for inspection and available to the DES and/or EPA upon request. Each delivery ticket shall indicate the following:<br>A) The name of the fuel supplier;<br>B) The address of the fuel supplier;<br>C) The telephone number of the fuel supplier;<br>D) The type of fuel delivered;<br>E) The quantity of propane delivered;<br>F) The date of delivery; and<br>G) The maximum percent sulfur by weight of the propane delivered.<br>If the delivery tickets do not contain sulfur content of fuel delivered, the Permittee shall provide other documentation from the fuel supplier with the above information or perform testing in accordance with appropriate ASTM test methods to determine compliance with the sulfur content limitation provisions in Env-A 1605 and 40 CFR 52 for gaseous fuels. | For each delivery of propane | SREG | Env-A 806.05 (new) and 40 CFR 70.6(a)(3) |
| 11. | Natural Gas Utilization Records: PSNH shall maintain billing tickets for each natural gas supplier. The billing tickets shall be in a form suitable for inspection and available to the DES and/or EPA upon request. Each billing ticket shall indicate the following:<br>A) The name of the fuel supplier;<br>B) The address of the fuel supplier;<br>C) The telephone number of the fuel supplier;<br>D) The type of fuel delivered; and<br>E) The quantity of natural gas used. | Monthly | SRCT, SREG | State Permits to Operate Nos. PO-B-1629, PO-B-1630, PO-B-1631, PO-B-0037, and PO-B-1867 |
| 12. | Emergency Generator Operating Records: PSNH shall record and maintain monthly and consecutive 12-month records of the operating hours of the emergency generator. | Monthly | SREG | 40 CFR 70.6(a)(3) |
| 13. | General Recordkeeping Requirements for Process Operations: Keep monthly records of raw material utilization (coal) for each of the crusher systems and for the coal fed to SR4, SR5, and SR6. | Monthly and consecutive 12 month periods | SR4, SR5, SR6 | Env-A 903.02 |
| 14. | Coal Crusher Records: The Permittee shall maintain the following information, which may be included in the facility work management | As specified | SRCC | State Permit to Operate No. PO-BP-2688 |

| Table 9 – Applicable Recordkeeping Requirements[18] | | | | |
|---|---|---|---|---|
| **Item No.** | **Recordkeeping Requirement** | **Frequency of Recordkeeping** | **Applicable Emission Unit** | **Regulatory Cite** |
| | system:<br>A) The monthly visible emission observation results;<br>B) A log of repairs made to the coal crusher enclosure. The log shall include the following:<br>1) The date a problem was observed;<br>2) The date of the repair;<br>3) A description of the problem; and<br>4) The corrective actions taken. | | | |
| 15. | Multipollutant Budget and Trading Program Recordingkeeping Requirements: PSNH shall comply with the recordkeeping requirements of the multipollutant budget and trading program. | As required by the rule | SR4, SR5, SR6 | Env-A 2900 |
| 16. | Certificate of Representation: The Permittee shall complete and retain a certificate of representation for a designated representative or an alternate designated representative including the elements pursuant to 40 CFR 72.24, *Certificate of representation*. | Maintain at the facility at all times | SR4, SR5, SR6 | 40 CFR 72.24 |
| 17. | Record Retention: The Permittee shall retain the records required by this permit on file for a minimum of 5 years except the certificate of representation for the designated representatives shall be kept beyond the 5-year period. | Retain for a minimum of 5 years or as specified | Facility wide | Env-A 902.01 (a) (new), Env-A 3213, 40 CFR 70.6 (a)(3)(ii)(B), and 40 CFR 72.9 (f) |
| 18. | Regulated Toxic Air Pollutant Records: The Permittee shall maintain records in accordance with the applicable method used to demonstrate compliance pursuant to Env-A 1406. | Maintain at facility at all times | All devices subject to RSA 125-I and Env-A 1400 | Env-A 902.01 (c) (new) State Enforceable Only |
| 19. | Monitoring Records: The Permittee shall maintain records of monitoring results as specified in Table 8 of this Permit including the following:<br>A) Visible emission/opacity test results;<br>B) NOx , $SO_2$ , $CO_2$, continuous emissions monitoring data;<br>C) Stack volumetric flow rate;<br>D) Heat input rate;<br>E) Operating hours of each boiler;<br>F) TSP emissions (in lb/MMBtu over a 24-hour calendar day, lb/hr, tons per month, tons per 12-month period);<br>G) $PM_{10}$ emissions (in lb/hr, tons per month, tons per 12-month period);<br>H) Differential pressure of ESP;<br>I) Voltage drop between each ESP plate;<br>J) Outlet temperature of the ESP; | Maintain on a continuous basis | Facility wide | 40 CFR 70.6(a)(3)(ii) |

| Table 9 – Applicable Recordkeeping Requirements[18] | | | | |
|---|---|---|---|---|
| **Item No.** | **Recordkeeping Requirement** | **Frequency of Recordkeeping** | **Applicable Emission Unit** | **Regulatory Cite** |
| | K) Outlet temperature of the air preheater prior to the ESP;<br>L) Urea consumption;<br>M) Damper positions;<br>N) Operating hours of flyash reinjection system;<br>O) Fly ash reinjection rate;<br>P) NOx emissions for the emergency generator;<br>Q) Net electrical output (MWh);<br>R) Flow metering calibrations;<br>S) Coal throughput; and<br>T) Quantities of regulated substances. | | | |



## J. Reporting Requirements

The Permittee is subject to the federally enforceable reporting requirements identified in Table 10 below:

| Table 10 – Applicable Reporting Requirements | | | | |
|---|---|---|---|---|
| **Item No.** | **Reporting Requirement** | **Frequency of Reporting** | **Applicable Emission Unit** | **Regulatory Cite** |
| 1. | NOx Reporting Requirements: The Permittee shall submit reports of the NOx records kept pursuant to the Section VIII. I. Table 9, Applicable Recordkeeping Requirements. | Annually (no later than April 15th of the following year) | SR4, SR5, SR6, SRCT, SREG | Env-A 901.09 (old) and Env-A 909.03 (new) |
| 2. | State Acid Deposition Control Program Reporting Requirements: The Permittee shall submit an annual report of the fuel utilization information pursuant to Env-A 903.03 and Section VIII. I. Table 9, Applicable Recordkeeping Requirements. | Annually (no later than April 15th of the following year) | SR4, SR5, SR6 | Env-A 907.02 (new) |
| 3. | CEMS Recertification Notifications and Reports:<br><br>A) The Permittee shall notify EPA and DES by telephone or in writing and not later than 21 days prior to the first scheduled day of full recertification testing and at least 7 calendar days prior to the first scheduled day of partial recertification testing (when all of the tests are not required). In emergency situations when equipment fails with lost data, the Permittee may provide notice within 2 business days following the date when testing is scheduled. If the testing is rescheduled, the Permittee may notify DES and EPA by telephone or other means within 2 business days prior to the scheduled test date or the revised test date, | 7 days prior to partial recertification, 21 days prior to full recertication, and 45 days after all recertification tests | SR4, SR5, SR6 | 40 CFR 75.61 (a)(1), 75.70, 75.63, and 75.73(d) and Env-A 3212 and 2910 |

| Table 10 – Applicable Reporting Requirements | | | | |
|---|---|---|---|---|
| **Item No.** | **Reporting Requirement** | **Frequency of Reporting** | **Applicable Emission Unit** | **Regulatory Cite** |
| | whichever is earlier.<br>B) Within 45 calendar days after completing all recertification tests, the Permittee shall submit to EPA and DES the electronic and hardcopy information contained in 40 CFR 75.63.<br>C) Pursuant to Env-A 3212.14 and Env-A 2910.10, PSNH shall submit an application to DES within 45 days after completing all initial certification or recertification tests including the information required under 40 CFR 75, Subpart H.<br>D) Pursuant to Env-A 2910.07, PSNH shall also submit written notification required pursuant to 40 CFR 75.61 to the ATS administrator.<br>E) Pursuant to Env-A 3212.09, PSNH shall comply with the notification requirements of Env-A 3212.07 for SRCT. | | | |
| 4. | Relative Accuracy Test Audit (RATA) Notification and Reports:<br>A) The Permittee shall submit written notice to EPA and DES no later than 21 calendar days prior to the first scheduled day of testing. If the testing is rescheduled, the Permittee may notify DES and EPA by telephone or other means no later than 24-hours in advance of the new testing date. Pursuant to Env-A 808.07, PSNH shall notify DES at least 30 days prior to the performance of the RATA. DES shall require rescheduling of the RATA if staff necessary to observe the RATA are not available.<br>B) If requested, the Permittee shall submit the quality assurance RATA reports to EPA and DES by the later of 45 days after completing a quality assurance RATA or 15 days of receiving the request.<br>C) Pursuant to Env-A 808.05, PSNH shall submit to DES a written report summarizing the performance specification testing within 30 days of the completion of the test.<br>D) Pursuant to Env-A 3212.11, for SRCT, the Permittee shall submit written notification to DES only.<br>E) Pursuant to Env-A 2910.07, PSNH shall also submit written notification required pursuant to 40 CFR 75.61 to the ATS administrator. | 21 calendar days prior to RATA | SR4, SR5, SR6 | 40 CFR 75.61 (a)(5) and 75.73(d) and Env-A 3212.11 and 2910 and 808.05 and 808.07(c) and (d) |
| 5. | Performance Specification Testing Reports:<br>A) DES shall be notified of the date or dates of the performance specification testing at least | 30-day notice to DES prior to test; test report to DES | SR4, SR5, SR6 | Env-A 808.05 |

| Table 10 – Applicable Reporting Requirements | | | | |
|---|---|---|---|---|
| **Item No.** | **Reporting Requirement** | **Frequency of Reporting** | **Applicable Emission Unit** | **Regulatory Cite** |
| | 30 days prior to the scheduled dates.<br>B) PSNH shall submit to DES a written report summarizing the testing within 30 days of the completion of the test. | 30 days after the test | | |
| 6. | General Audit Notification Requirements: PSNH shall notify DES at least 2 weeks prior to any planned audit or test procedure except for RATAs, where PSNH shall provide at least 30 days notice prior to the performance of the RATA. | 2 weeks prior to any planned audit or test procedure and at least 30 days prior to the RATA. | SR4, SR5, SR6 | Env-A 808.07(c) and (e) |
| 7. | Monitoring and QA/QC Plan Submittals: The Permittee shall submit to EPA and DES a complete, electronic, up-to-date monitoring plan at the time of recertification application submission and in each electronic quarterly report, and whenever an update of the electronic monitoring plan information is required. | In the recertification application, in each electronic quarterly report, and whenever an update of the electronic monitoring plan information is required | SR4, SR5, SR6, SRCT | 40 CFR 75.62 and 75.73(d) and (e) and Env-A 808.04, 808.06, 3212 and 2910 |
| 8. | Quarterly Reports:<br>A) The Permittee shall submit to DES and EPA in electronic format or other format as approved by DES and/or EPA 30 calendar days after the end of the calendar quarter the information contained in 40 CFR 75.64(a), 40 CFR 75.73(f), 40 CFR 75.74, Env-A 2912, Env-A 3212, Env-A 3214, Env-A 808.11(new), and Env-A 808.13 (new) and the following information:<br>1) Written report of opacity, $SO_2$, NOx, and $CO_2$ emissions as calculated by the CEMS.<br>2) The 24-hour averages of the following shall be reported, whether or not an excess emission has occurred:<br>a. $SO_2$ lb/MMBtu, $SO_2$ ppm, and $SO_2$ lb/hr;<br>b. NOx lb/MMBtu, NOx ppm, and NOx lb/hr;<br>c. Percent $CO_2$ and $CO_2$ lb/hr as measured by continuous monitor/recorder;<br>d. Stack volumetric flowrate (in kscfm);<br>e. Load (in MW);<br>f. Steam flow (in klbs/hr);<br>g. Heat input (MMBtu/hr); and<br>h. Opacity (in percent).<br>3) Excess emission data recorded by the CEM system, including the following: | 30 calendar days after the end of the calendar quarter, 30 calendar days after the end of the 2nd and 3rd calendar quarter for SRCT | SR4, SR5, SR6, SRCT | 40 CFR 75.64, 40 CFR 75.73(f), 40 CFR 75.57(f), 40 CFR 75.74, Env-A 2910, Env-A 2911, Env-A 3212, Env-A 3214, Env-A 808.11(new), Env-A 808.13 (new), and State Permits to Operate Nos. PO-B-1629, PO-B-1630, PO-B-1631 |

| Table 10 – Applicable Reporting Requirements | | | | |
|---|---|---|---|---|
| **Item No.** | **Reporting Requirement** | **Frequency of Reporting** | **Applicable Emission Unit** | **Regulatory Cite** |
| | a. The date and time of the beginning and ending of each of excess emissions;<br>b. The magnitude of each excess emission;<br>c. The specific cause of the excess emission; and<br>d. The corrective action taken.<br>4) If no excess emissions have occurred, a statement to that effect;<br>5) For gaseous emission monitoring systems, the daily averages of the measurements made and emissions rates calculated.<br>6) A statement as to whether the CEM system was inoperative, repaired, or adjusted during the reporting period;<br>7) If the CEM system was inoperative, repaired, or adjusted during the reporting period, the following information:<br>a. The date and time of the beginning and ending of each period when the CEM was inoperative;<br>b. The reason why the CEM was not operating;<br>c. The corrective action taken; and<br>d. The percent data availability calculated in accordance with Env-A 808.10 for each flow, diluent, or pollutant analyzer in the CEM system;<br>8) The date and time beginning and ending each period when the source of emissions which the CEM system is monitoring was not operating;<br>9) When calibration gas is used, the following information:<br>a. The calibration gas concentration;<br>b. If a gas bottle was changed during the quarter:<br>i) The date of the calibration gas bottle change;<br>ii) The gas bottle concentration before the change; and<br>iii) The gas bottle concentration after the change; and<br>c. The expiration date for all calibration gas bottles used.<br>10) Excess emissions of $SO_2$ shall be defined as an annual $SO_2$ emission, which exceeds | | | |

| Table 10 – Applicable Reporting Requirements | | | | |
|---|---|---|---|---|
| **Item No.** | **Reporting Requirement** | **Frequency of Reporting** | **Applicable Emission Unit** | **Regulatory Cite** |
| | the state acid rain emission limitation, as calculated from CEM data.<br>B) The designated representative shall affirm that the component/system identification codes and formulas in the quarterly electronic reports represent current operating conditions.<br>C) The designated representative shall submit a certification in support of each quarterly emissions monitoring report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored.<br>D) The certification shall indicate whether the monitoring data submitted were recorded in accordance with the applicable requirements of this part including the quality control and quality assurance procedures and specifications of 40 CFR 75, and any such requirements, procedures and specifications of an applicable excepted or approved alternative monitoring method.<br>E) For a unit with add-on emission controls, the designated representative shall also include a certification, for all hours where data are substituted following the provisions of 40 CFR 75.34(a)(1), that the add-on emission controls were operating within the range of parameters listed in the monitoring plan and that the substitute values recorded during the quarter do not systematically underestimate $SO_2$ or NOx emissions, pursuant to 40 CFR 75.34.<br>F) For a unit that is reporting on a control period basis, the designated representative shall also include a certification that the NOx emission rate and NOx concentration values substituted for missing data under 40 CFR 75 Subpart D are calculated using only values from a control period and do not systematically underestimate NOx emissions.<br>G) Pursuant to Env-A 3212.15(b), for SRCT, PSNH shall either meet all of the requirements of 40 CFR 75 related to monitoring and reporting NOx mass emissions during the entire year or submit quarterly reports only for the periods from the earlier of May 1 or the date and hour that | | | |

| Table 10 – Applicable Reporting Requirements | | | | |
|---|---|---|---|---|
| **Item No.** | **Reporting Requirement** | **Frequency of Reporting** | **Applicable Emission Unit** | **Regulatory Cite** |
| | PSNH successfully completes all of the recertification tests required in accordance with 40 CFR 75.74 through September 30 of each year in accordance with 40 CFR 75.74(b).<br>H) Pursuant to Env-A 3212.15(e) and Env-A 2910.11(a)(3), the quarterly reports shall be submitted in the manner specified in 40 CFR 75, Subpart H and 40 CFR 75.64.<br>I) Pursuant to Env-A 3212.15(f) and Env-A 2910.11(a)(4), for SR4, SR5, SR6, the quarterly reports shall include all of the data and information required in 40 CFR Subpart H and 40 CFR Subpart G.<br>J) Pursuant to Env-A 3212.15(g), for SRCT, the quarterly reports shall include all of the data and information required in 40 CFR Subpart H.<br>K) Pursuant to Env-A 3214.01 and Env-A 2911.01, PSNH shall also submit emissions and operations information in electronic format as part of the quarterly reports.<br>L) Pursuant to Env-A 3214.02, PSNH shall also submit to the NETS administrator in the quarterly reports, NOx emissions in lb/hr for every hour during the control period and cumulative quarterly and seasonal NOx emission data in pounds.<br>M) Pursuant to Env-A 2911.02, PSNH shall also submit to the ETS administrator in the quarterly reports, $SO_2$, NOx and $CO_2$ emissions in lb/hr for every hour during the year and cumulative quarterly and annual $SO_2$, NOx and $CO_2$ emissions data in pounds. | | | |
| 9. | Offset Plans for Excess $SO_2$ Emissions: The Permittee shall submit an offset plan no later than 60 days after the end of any calendar year during which a unit has excess $SO_2$ emissions. The offset plan shall contain the information pursuant to 40 CFR 77.3. | 60 days after the end of any calendar year | SR4, SR5, SR6 | 40 CFR 77.3 |
| 10. | Quarterly Audit Reports: Pursuant to Env-A 808.07 (new), the Permittee shall submit to DES, a written summary report of the results of all required audits that were performed in that quarter, in accordance with the following:<br>A) For gaseous CEM audits, the report format shall conform to that presented in 40 CFR 60, Appendix F, Procedure 1, Section 7; and | Quarterly, no later than 30 calendar days after the end of the quarter for which reporting is required | SR4, SR5, SR6 | Env-A 808.07 (new) |

| Table 10 – Applicable Reporting Requirements | | | | |
|---|---|---|---|---|
| **Item No.** | **Reporting Requirement** | **Frequency of Reporting** | **Applicable Emission Unit** | **Regulatory Cite** |
| | B) For opacity CEM audits, the report format shall conform to that presented in EPA-600/8-87-025, April 1992, "Technical Assistance Document: Performance Audit Procedures for Opacity Monitors."  | | | |
| 11. | Quarterly Fuel Data Reports: The Permittee shall submit quarterly reports of the coal data listed in Table 9 above summarized on a monthly basis. The Permittee shall also submit quarterly reports containing the monthly fuel usage information by device fuel type and sulfur content. | Quarterly, no later than 30 calendar days after the end of the quarter for which reporting is required | SR4, SR5, SR6 | Env-A 910 and State Permits to Operate Nos. PO-B-1629, PO-B-1630, and PO-B-1631 |
| 12. | Fly Ash Reinjection System Reports: The Permittee shall submit the following fly ash reinjection system information to DES:<br>A) Daily hours of operation of the fly ash reinjection system for each boiler; and<br>B) Calculation of the increase in $PM_{10}$ and TSP emissions from the use of flyash reinjection on a monthly and 12-month rolling average basis for SR4, SR5, and SR6 to demonstrate compliance with the TSP and $PM_{10}$ emission limitations. | Quarterly, no later than 30 calendar days after the end of the quarter for which reporting is required | SR4, SR5, SR6 | Env-A 910 and State Permits to Operate Nos. PO-B-1629, PO-B-1630, and PO-B-1631 |
| 13. | Coal Crusher Reports: The Permittee shall notify DES within 8 hours and within 15 days in writing of observing visible emissions from the coal crusher or observing a break in the coal crusher. | As required after observing visible emissions or breaks in coal enclosures | SRCC | Env-A 910 and State Permit to Operate No. PO-BP-2688 |
| 14. | Performance Test Reports: The Permittee shall submit a report to DES documenting the results of the compliance stack emission test. The compliance stack emission test report shall contain the following information:<br>A) All the information required for the pre-test protocol as described in Env-A 802.04;<br>B) All test data;<br>C) All calibration data;<br>D) Process data agreed by DES and the Permittee to be collected;<br>E) All test results;<br>F) A description of any discrepancies or problems that occurred during testing or sample analysis;<br>G) An explanation of how discrepancies or problems were treated and their effect on the final results; and<br>H) A list and description of all equations used in the test report, including sample calculations for each equation used. | No later than 60 days after a performance test | Facility wide | Env-A 802.11 (new) |
| 15. | Net Electrical Output Reporting – The Permittee | Annually (no later | SR4, SR5, SR6, | Env-A |

| Table 10 – Applicable Reporting Requirements | | | | |
|---|---|---|---|---|
| **Item No.** | **Reporting Requirement** | **Frequency of Reporting** | **Applicable Emission Unit** | **Regulatory Cite** |
| | shall report monthly data of the net electrical output of each affected source for the calendar year to the Energy Information Administration and DES. | than April 15th of the following year) | SRCT | 2906.05(g) |
| 16. | Regulated Toxic Air Pollutant Reports: The Permittee shall report actual emissions speciated by individual regulated toxic air pollutants, including a breakdown of VOC emission compounds. | Annually (no later than April 15th of the following year) | All devices subject to RSA 125-I and Env-1400 | Env-A 907.01 (new) State Enforceable Only |
| 17. | Semi-Annual Permit Deviation/Monitoring Reports: The Permittee shall submit a permit deviation/monitoring report of the data specified in Table 8 of this Permit every 6 months. All required reports must be certified by a responsible official consistent with 40 CFR 70.5(d). The report shall contain a summary of the following information, unless this information was provided to DES pursuant to another requirement:<br>A) Visible emission/opacity test results;<br>B) Summary showing monthly average sulfur content of the liquid, solid,and gaseous fuels from testing and/or delivery ticket and/or other documentation certifications for liquid, solid, and gaseous fuel sulfur content;<br>C) Urea consumption in gallons per month;<br>D) NOx emissions for the emergency generator in tons/quarter for each quarter in the semiannual period;<br>E) Fuel consumption for each combustion device except SR4, SR5, and SR6;<br>F) Net electrical output (MWh);<br>G) Operating hours for the emergency generator; and<br>H) All instances of deviations from Permit requirements. | Semiannually (by July 31st and January 31st of each calendar year) | Facility wide | 40 CFR 70.6(a)(3)(iii)(A) |
| 18. | Prompt Reporting of Permit Deviations: The Permittee shall promptly report deviations from permit requirements by phone, fax or e-mail in accordance with Section XXVIII of this permit and Env-A 911 (new). | Within 24 hours of discovery of occurrence | Facility wide | Env-A 911 (new) and 40 CFR 70.6 (a)(3)(iii)(B) |
| 19. | Certification by a Responsible Official: Any report or compliance certification submitted to the DES and/or EPA shall contain certification by a responsible official of truth, accuracy, and completeness as outlined in Section XXI.B of this permit. | With each submittal | Facility wide | 40 CFR 70.5 (d) |
| 20. | Certification by the Designated Representative or the Alternate Designated Representative: Any document submitted under the Acid Rain program | With each submittal | SR4, SR5, SR6 | 40 CFR 72.21 |

| Table 10 – Applicable Reporting Requirements | | | | |
|---|---|---|---|---|
| **Item No.** | **Reporting Requirement** | **Frequency of Reporting** | **Applicable Emission Unit** | **Regulatory Cite** |
| | shall be signed and certified by the designated representative or the alternate designated representative and include the statements pursuant to 40 CFR 72.21 (a)(1) and (2). | | | |
| 21. | Emissions Reporting and Emissions Fees: The Permittee shall submit reports of actual emissions of all significant and insignificant activities and payment of emission-based fees in accordance with Env-A 700 and Section XXIII of this permit. | Quarterly payment on the 15th day of the 6th quarter after actual emissions occurred; Reporting annually by April 15th of the following year | Facility wide | Env-907.01 (new) and Env-A 704.03 and 704.04 |
| 22. | Annual Acid Rain Compliance Certification Report: The Permittee shall submit an annual compliance certification report containing all the information required in 40 CFR 72.90(b) | 60 days after the end of the calendar year | SR4, SR5, SR6 | 40 CFR 72.90 |
| 23. | Multipollutant Budget and Trading Program Annual Compliance Certification: TThe Permittee shall submit an annual compliance certification containing the information listed in Env-A 2913. | By January 30 of each year, beginning in 2007 | SR4, SR5, SR6 | Env-A 2913 |
| 24. | NOx Budget Program Compliance Certification: For each control period, the Permittee shall submit an annual compliance certification containing the information listed in Env-A 3216. | By November 30 of each year | SR4, SR5, SR6, SRCT | Env-A 3216 |
| 25. | Annual Title V Compliance Certification: The Permittee shall submit an annual compliance certification in accordance with Section XXI of this permit. | Annually (no later than April 15th of the following year) | Facility wide | 40 CFR 70.6(c)(1) |



## IX. Requirements Currently Not Applicable

The Permittee did not identify any requirements that are not applicable to the facility.

# General Title V Operating Permit Conditions

## X. Issuance of a Title V Operating Permit

This Permit is issued in accordance with the provisions of Part Env-A 609. In accordance with 40 CFR 70.6(a)(2), this Permit shall expire on the date specified on the cover page of this Permit, which shall not be later than the date five (5) years after issuance of this Permit.



Permit expiration terminates the Permittee's right to operate the Permittee's emission units, control equipment or associated equipment covered by this permit, unless a timely and complete renewal application is submitted at least 6 months before the expiration date.

## XI. Title V Operating Permit Renewal Procedures

Pursuant to Env-A 609.07(b), an application for renewal of this Permit shall be considered timely if it is submitted to the Director at least six months prior to the designated expiration date of this Permit.

## XII. Application Shield

Pursuant to Env-A 609.08, if an applicant submits a timely and complete application for the issuance or renewal of a Permit, the failure to have a Permit shall not be considered a violation of this part until the Director takes final action on the application.

## XIII. Permit Shield

**A.** Pursuant to Env-A 609.09(a), a permit shield shall provide that:

1. For any applicable requirement or any state requirement found in the New Hampshire Rules Governing the Control of Air Pollution specifically included in this Permit, compliance with the conditions of this Permit shall be deemed compliance with said applicable requirement or said state requirement as of the date of permit issuance; and

2. For any potential applicable requirement or any potential state requirement found in the New Hampshire Rules Governing the Control of Air Pollution specifically identified in this Title V Operating Permit Section IX as not applicable to the stationary source or area source, the Permittee need not comply with the specifically identified federal or state requirements.

**B.** The permit shield identified in Section XIII.A. of this Permit shall apply only to those conditions incorporated into this Permit in accordance with the provisions of Env-A 609.09(b). It shall not apply to certain conditions as specified in Env-A 609.09(c) that may be incorporated into this Permit following permit issuance by DES.

**C.** If a Title V Operating Permit and amendments thereto issued by the DES does not expressly include or exclude an applicable requirement or a state requirement found in the NH Rules

Governing the Control of Air Pollution, that applicable requirement or state requirement shall not be covered by the permit shield and the Permittee shall comply with the provisions of said requirement to the extent that it applies to the Permittee.

**D.** If the DES determines that this Title V Operating Permit was issued based upon inaccurate or incomplete information provided by the applicant or Permittee, any permit shield provisions in said Title V Operating Permit shall be void as to the portions of said Title V Operating Permit which are affected, directly or indirectly, by the inaccurate or incomplete information.



**E.** Pursuant to Env-A 609.09(f), nothing contained in Section XIII of this Permit shall alter or affect the ability of the DES to reopen this Permit for cause in accordance with Env-A 609.19 or to exercise its summary abatement authority.

**F.** Pursuant to Env-A 609.09(g), nothing contained in this section or in any title V operating permit issued by the DES shall alter or affect the following:

1. The ability of the DES to order abatement requiring immediate compliance with applicable requirements upon finding that there is an imminent and substantial endangerment to public health, welfare, or the environment;

2. The state of New Hampshire's ability to bring an enforcement action pursuant to RSA 125-C:15,II;

3. The provisions of section 303 of the CAA regarding emergency orders including the authority of the EPA Administrator under that section;

4. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

5. The applicable requirements of the acid rain program, consistent with section 408(a) of the CAA;

6. The ability of the DES or the EPA Administrator to obtain information about a stationary source, area source, or device from the owner or operator pursuant to section 114 of the CAA; or

7. The ability of the DES or the EPA Administrator to enter, inspect, and/or monitor a stationary source, area source, or device.

## XIV. Reopening for Cause

The Director shall reopen and revise a Title V Operating Permit for cause if any of the circumstances contained in Env-A 609.19(a) exist. In all proceedings to reopen and reissue a Title V Operating Permit, the Director shall follow the provisions specified in Env-A 609.19(b) through (g).

## XV. Administrative Permit Amendments

**A.** Pursuant to Env-A 612.01, the Permittee may implement the changes addressed in the request for an administrative permit amendment as defined in Part Env-A 100 immediately upon submittal of the request.



**B.** Pursuant to Env-A 612.01, the Director shall take final action on a request for an administrative permit amendment in accordance with the provisions of Env-A 612.01(b) and (c).

## XVI. Operational Flexibility

**A.** Pursuant to Env-A 612.02, the Permittee subject to and operating under this Title V Operating Permit may make changes involving trading of emissions, off-permit changes, and section 502(b)(10) changes at the permitted stationary source or area source without filing a Title V Operating Permit application for and obtaining an amended Title V Operating Permit, provided that all of the following conditions are met, as well as conditions specified in Section XVI. B through E of this permit, as applicable. DES has included permit terms authorizing the generation of DERs.

1. The change is not a modification under any provision of Title I of the CAA;

2. The change does not cause emissions to exceed the emissions allowable under the Title V operating permit, whether expressed therein as a rate of emissions or in terms of total emissions;

3. The owner or operator has obtained any temporary permit required by Env-A 600;

4. The owner or operator has provided written notification to the director and administrator of the proposed change and such written notification includes:

   c) The date on which each proposed change will occur or has occurred;

   d) A description of each such change;

   e) Any change in emissions that will result;

   f) A request that the operational flexibility procedures be used; and

   g) The signature of the responsible official, consistent with Env-A 605.04(b);

5. The change does not exceed any emissions limitations established under any of the following:

   a) The New Hampshire Code of Administrative Rules, Env-A 100-3800;

b) The CAA; or

c) This Title V Operating Permit; and

6. The Permittee, DES, and EPA have attached each written notice required above to their copy of this Title V Operating Permit.



**B.** For changes involving the trading of emissions, the Permittee must also meet the following conditions:

1. The Title V Operating Permit issued to the stationary source or area source already contains terms and conditions including all terms and conditions which determine compliance required under 40 CFR 70.6(a) and (c) and which allow for the trading of emissions increases and decreases at the permitted stationary source or area source solely for the purpose of complying with a federally-enforceable emissions cap that is established in the permit independent of otherwise applicable requirements;

2. The owner or operator has included in the application for the Title V Operating Permit proposed replicable procedures and proposed permit terms which ensure that the emissions trades are quantifiable and federally enforceable for changes to the Title V Operating Permit which qualify under a federally- enforceable emissions cap that is established in the Title V Operating Permit independent of the otherwise applicable requirements;

3. The Director has not included in the emissions trading provision any devices for which emissions are not quantifiable or for which there are no replicable procedures to enforce emissions trades; and

4. The written notification required above is made at least 7 days prior to the proposed change and includes a statement as to how any change in emissions will comply with the terms and conditions of the Title V Operating Permit.

**C.** For off-permit changes, the Permittee must also meet the following conditions:

1. Each off-permit change meets all applicable requirements and does not violate any existing permit term or condition;

2. The written notification required above is made contemporaneously with each off-permit change, except for changes that qualify as insignificant under the provisions of Env-A 609.04;

3. The change is not subject to any requirements under Title IV of the CAA and the change is not a Title I modification;

4. The Permittee keeps a record describing the changes made at the source which result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise

regulated under this Permit, and the emissions resulting from those changes; and

5. The written notification required above includes a list of the pollutants emitted and any applicable requirement that would apply as a result of the change.

**D.** For section 502(b)(10) changes, the Permittee must also meet the following conditions:



1. The written notification required above is made at least 7 days prior to the proposed change; and

2. The written notification required above includes any permit term or condition that is no longer applicable as a result of the change.

**E.** Pursuant to Env-A 612.02(f), the off-permit change and section 502(b)(10) change shall not qualify for the permit shield under Env-A 609.09.

## XVII. Minor Permit Amendments

**A.** Pursuant to Env-A 612.05 prior to implementing a minor permit modification, the Permittee shall submit a written request to the Director in accordance with the requirements of Env-A 612.05(b).

**B.** The Director shall take final action on the minor permit amendment request in accordance with the provisions of Env-A 612.05(c) through (g).

**C.** Pursuant to Env-A 612.05(g), the permit shield specified in Env-A 609.09 shall not apply to minor permit amendments under Section XVII. of this Permit.

**D.** Pursuant to Env-A 612.05(a), the Permittee shall be subject to the provisions of RSA 125-C:15 if the change is made prior to the filing with the Director a request for a minor permit amendment.

## XVIII. Significant Permit Amendments

**A.** Pursuant to Env-A 612.06, a change at the facility shall qualify as a significant permit amendment if it meets the criteria specified in Env-A 612.06(a)(1) through (5).

**B.** Prior to implementing the significant permit amendment, the Permittee shall submit a written request to the Director which includes all the information as referenced in Env-A 612.06(b) and (c) and shall be issued an amended Title V Operating Permit from the DES. The Permittee shall be subject to the provisions of RSA 125-C:15 if a request for a significant permit amendment is not filed with the Director and/or the change is made prior to the issuance of an amended Title V Operating Permit.

**C.** The Director shall take final action on the significant permit amendment in accordance with the Procedures specified in Env-A 612.06(d), (e) and (f).

## XIX. Title V Operating Permit Suspension, Revocation or Nullification

**A.** Pursuant to RSA 125-C:13, the Director may suspend or revoke any final permit issued hereunder if, following a hearing, the Director determines that:



1. The Permittee has committed a violation of any applicable statute or state requirement found in the New Hampshire Rules Governing the Control of Air Pollution, order or permit condition in force and applicable to it; or

2. The emissions from any device to which this Permit applies, alone or in conjunction with other sources of the same pollutants, presents an immediate danger to the public health.

**B.** The Director shall nullify any Permit, if following a hearing in accordance with RSA 541-A:30, II, a finding is made that the Permit was issued in whole or in part based upon any information proven to be intentionally false or misleading.

## XX. Inspection and Entry

EPA and DES personnel shall be granted access to the facility covered by this Permit, in accordance with RSA 125-C:6,VII, for the purposes of: inspecting the proposed or permitted site; investigating a complaint; and assuring compliance with any applicable requirement or state requirement found in the NH Rules Governing the Control of Air Pollution and/or conditions of any Permit issued pursuant to Chapter Env-A 600.

## XXI. Certifications

### A. Compliance Certification Report

In accordance with 40 CFR 70.6(c) the Responsible Official shall certify, for the previous calendar year, that the facility is in compliance with the requirements of this permit. The report shall be submitted annually, no later than April 15th of the following year. The report shall be submitted to the DES and to the U.S. Environmental Protection Agency - New England Region**.** The report shall be submitted in compliance with the submission requirements below.

In accordance with 40 CFR 70.6(c)(5), the report shall describe:

1. The terms and conditions of the Permit that are the basis of the certification;

2. The current compliance status of the source with respect to the terms and conditions of this Permit, and whether compliance was continuous or intermittent during the reporting period;

3. The methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and

4. Any additional information required by the DES to determine the compliance status of the source.

**B. Certification of Accuracy Statement**

All documents submitted to the DES shall contain a certification of accuracy statement by the responsible official of truth, accuracy, and completeness. Such certification shall be in accordance with the requirements of 40 CFR 70.5(d) and contain the following language:



"I am authorized to make this submission on behalf of the facility for which the submission is made. Based on information and belief formed after reasonable inquiry, I certify that the statements and information in the enclosed documents are to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

All reports submitted to DES (except those submitted as emission based fees as outlined in Section XXIII of this Permit) shall be submitted to the following address:

New Hampshire Department of Environmental Services
Air Resources Division
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095
ATTN: Section Supervisor, Compliance Bureau

All reports submitted to EPA shall be submitted to the following address:

Office of Environmental Stewardship
Director Air Compliance Program
United States Environmental Protection Agency
1 Congress Street
Suite 1100 (SEA)
Boston, MA 02114-2023
ATTN: Air Compliance Clerk

## XXII. Enforcement

Any noncompliance with a permit condition constitutes a violation of RSA 125-C:15, and, as to the conditions in this permit which are federally enforceable, a violation of the Clean Air Act, 42 U.S.C. Section 7401 et seq., and is grounds for enforcement action, for permit termination or revocation, or for denial of an operating permit renewal application by the DES and/or EPA. Noncompliance may also be grounds for assessment of administrative, civil or criminal penalties in accordance with RSA 125-C:15 and/or the Clean Air Act. This Permit does not relieve the Permittee from the obligation to comply with any other provisions of RSA 125-C, the New Hampshire Rules Governing the Control of Air Pollution, or the Clean Air Act, or to obtain any other necessary authorizations from other governmental agencies, or to comply with all other applicable Federal, State, or Local rules and regulations, not addressed in this Permit.

In accordance with 40 CFR 70.6 (a)(6)(ii) a Permittee shall not claim as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

## XXIII. Emission-Based Fee Requirements



**A.** The Permittee shall pay an emission-based fee quarterly for this facility as calculated each calendar year pursuant to Env-A 704.03.

**B.** The Permittee shall determine the total actual quarterly emissions from the facility to be included in the emission-based multiplier specified in Env-A 704.03(a) for each calendar quarter in accordance with the methods specified in Env-A 616.

**C.** The Permittee shall calculate the quarterly emission-based fee for each calendar year in

$$FEE = E * DPT * CPIm * ISF$$

accordance with the procedures specified in Env-A 704.03 and the following equation:
Where:

| | |
|---|---|
| FEE = | The quarterly emission-based fee for each calendar quarter as specified in Env-A 704. |
| E = | The emission-based multiplier is based on the calculation of total quarterly emissions as specified in Env-A 704.02 and the provisions specified in Env-A 704.03(a). |
| DPT = | The dollar per ton fee the DES has specified in Env-A 704.03(b). |
| CPIm= | The Consumer Price Index Multiplier as calculated in Env-A 704.03(c). |
| ISF = | The Inventory Stabilization Factor as specified in Env-A 704.03(d). |

**D.** The Permittee shall contact the DES each calendar year for the value of the Inventory Stabilization Factor.

**E.** The Permittee shall contact the DES each calendar year for the value of the Consumer Price Index Multiplier.

**F.** The Permittee shall submit, to the DES, payment of the emission-based fee and a summary of the calculations referenced in Sections XXIII.B. and C of this Permit for each calendar quarter. The total emission-based fee shall be paid in four equal installments on a quarterly basis. The quarterly payments shall be made in accordance with Env-A 704.04 on the 15$^{th}$ day of the following months:

1. July of the year to which the fee applies (e.g., fees for emissions occurring during January, February, March 2002 are due July 15, 2003);

2. October of the year to which the fee applies (e.g., fees for emissions occurring during April, May, June 2002 are due on October 15, 2003);

3. January of the following year (e.g., fees for emissions occurring during July, August, September 2002 are due on January 15, 2004);

4. April of the following year (e.g., fees for emissions occurring during October, November, December 2002 are due on April 15, 2004).



The Permittee shall pay any remaining balance of the total emission-based fee for the year no later than April 15th of the following year.

The emission-based fee and summary of the calculations shall be submitted to the following address:

New Hampshire Department of Environmental Services
Air Resources Division
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095
ATTN.: Emissions Inventory

**G.** The DES shall notify the Permittee of any under payments or over payments of the annual emission-based fee in accordance with Env-A 704.05.

## XXIV. Duty To Provide Information

In accordance with 40 CFR 70.6 (a)(6)(v), upon the DES's written request, the Permittee shall furnish, within a reasonable time, any information necessary for determining whether cause exists for modifying, revoking and reissuing, or terminating the Permit, or to determine compliance with the Permit. Upon request, the Permittee shall furnish to the DES copies of records that the Permittee is required to retain by this Permit. The Permittee may make a claim of confidentiality as to any information submitted pursuant to this condition in accordance with Part Env-A 103 at the time such information is submitted to DES. DES shall evaluate such requests in accordance with the provisions of Part Env-A 103.

## XXV. Property Rights

Pursuant to 40 CFR 70.6 (a)(6)(iv), this Permit does not convey any property rights of any sort, or any exclusive privilege.

## XXVI. Severability Clause

Pursuant to 40 CFR 70.6 (a)(5), the provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstances is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not be affected thereby.

## XXVII. Emergency Conditions

Pursuant to 40 CFR 70.6 (g), the Permittee shall be shielded from enforcement action brought for noncompliance with technology based[19] emission limitations specified in this Permit as a result of an emergency[20]. In order to use emergency as an affirmative defense to an action brought for noncompliance, the Permittee shall demonstrate the affirmative defense through properly signed, contemporaneous operating logs, or other relevant evidence that:



**A.** An emergency occurred and that the Permittee can identify the cause(s) of the emergency;

**B.** The permitted facility was at the time being properly operated;

**C.** During the period of the emergency, the Permittee took all reasonable steps as expeditiously as possible, to minimize levels of emissions that exceeded the emissions standards, or other requirements in this Permit; and

**D.** The Permittee submitted notice of the emergency to the DES within two (2) business days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

## XXVIII. Permit Deviation

In accordance with 40 CFR 70.6(a)(3)(iii)(B), the Permittee shall report to the DES all instances of deviations from Permit requirements, by telephone, fax, or e-mail (pdeviations@des.state.nh.us) within 24 hours of discovery of such deviation. This report shall include the deviation itself, including those attributable to upset conditions as defined in this Permit, the probable cause of such deviations, and any corrective actions or preventative measures taken.

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[19] Technology based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain health based air quality standards.

[20] An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of any of these things.

Within 15 days of discovery of the permit deviation, the Permittee shall submit a written report including the above information as well as the following: preventive measures taken to prevent future occurrences; date and time the permitted device returned to normal operation; specific device, process or air pollution control equipment that contributed to the permit deviation; type and quantity of excess emissions emitted to the atmosphere due to permit deviation; and an explanation of the calculation or estimation used to quantify excess emissions.



Said Permit deviation shall also be submitted in writing to the DES in the semi-annual summary report of monitoring and testing requirements due July 31st and January 31st of each calendar year. Deviations are instances where any Permit condition is violated and has not already been reported as an emergency pursuant to Section XXVII of this Permit.

Reporting a Permit deviation is not an affirmative defense for action brought for noncompliance.

# Federal Acid Rain Requirements

## XXIX. Phase II Acid Rain Permit Application

The attached Phase II Acid Rain Permit application, dated July 1, 2003, is hereby incorporated by reference into this permit. The Permittee shall comply with the requirements set forth in the Phase II Acid Rain Permit Application and this permit.



## XXX. General Acid Rain Provisions

The Permittee shall comply with the applicable provisions of 40 CFR 72, *Permit Regulations*; 40 CFR 73, *Sulfur Dioxide Allowance System*; 40 CFR 75, *Continuous Emission Monitoring*; 40 CFR 76, *Acid Rain Nitrogen Oxides Emission Reduction Program*; and 40 CFR 77, *Excess Emissions*.